



BADGER STATE Smoke Signals

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Baraboo, Wisconsin
209th Consecutive Monthly Issue

May 1987

Return To: Kenneth A. Ebner K9EN
822 Wauona Trail, Portage WI 53901

Published Monthly Since 1969

220 MHz Comment Deadline Extended

The FCC has granted the ARRL request for an extension of time in General Docket 87-14, which proposes to reallocate the bottom 2 MHz of the 220-MHz band to the Land Mobile Service. The new deadline date for comments to be received by the Commission is May 21, with reply comments due June 19.

All amateurs should be aware of this vitally important Docket, and submit appropriate comments to FCC. For more information on this Docket, see April QST.

During its quest to defeat this FCC proposal, the ARRL has become aware of three internal FCC studies or reports dealing with spectrum occupancy of some of the Land Mobile Service frequencies.

According to the March 16 issue of *Broadcasting Magazine*, these studies show that many of the channels in the 800-MHz allocation to Land Mobile are being under-used or are not used at all. Another internal report from the FCC's former Office of Science and Technology (OST) was critical of the methodology used in a 1983 FCC Personal Radio Bureau (PRB) report which estimated future needs of the Land Mobile Service. OST contended the PRB overestimated the projected growth rates of the Land Mobile Service by 200-300%.

On March 24, ARRL filed a Freedom of Information Act request for these docu-

HOW TO TELL THE FCC WHAT YOU THINK

To be treated as formal comments, your submission to FCC should follow these rules. Send an original and five copies to: Secretary, Federal Communications Commission, Washington, DC 20554. Use regular 8 1/2 x 11 paper, printed on one side, preferably double-spaced. Leave an adequate left-hand margin so your submission can be read if put into a binder. Use the following heading:

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of

Amendment of Part 2
of the Commission's Rules
Regarding the Allocation of
the 216-225 MHz Band

General Docket 87-14

RM-4829 RM4831
RM-4983

COMMENTS OF _____ (your name)

Begin by stating that you are opposed to the proposed allocation of 220-222 MHz to land mobile, and that you favor its retention by the Amateur Service. State your qualifications, and what interest you have in the outcome (i.e., are you active on 220, are you planning to be, or do you use a repeater or packet radio system which is on 220?) Then, give factual, unemotional evidence why maintaining the amateur allocation is in the public interest. If you can offer alternatives which would accomplish the Commission's objectives for land mobile elsewhere in the spectrum (not another amateur band!), do so. Be persuasive, not threatening.

Sign your comments at the end, and include your address.

Send your comments to arrive by May 21. (From QST, April, 1987)



LAUGHING IT UP AT THE MARA SWAPFEST

Shown here reacting to a K9UTQ one-liner are Gene Santoski himself, K9UTQ, Wisconsin Section Traffic Manager and Unusual Trivia Quiz author; Richard R. Regent, K9GDF, Section Manager; Lisa Harper, KA9RII, Manager of the Badger Emergency Net; and Ed Metzger, W9PRN, Springfield, Illinois, Director of the ARRL's Central Division.

ments, since possession of them will undoubtedly aid the League in responding to the proposal. Under federal law, the FCC must respond to the request within 10 working days.

(From The ARRL Letter)

-- IN THIS ISSUE --

Meet W9CXY-----	9
Communicators Needed!-----	10
New Gear-----	10
Unusual Trivia Quiz-----	11
John's Junk Box-----	12
MARA Swapfest Photos-----	14
Armed Forces Day Test-----	15
Propagation Predictions-----	20

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Swapfests and other Social Events

Saturday, May 2, 1987. Ozaukee Radio Club's Ninth Annual Swapfest at the Circle B Recreation Center (Intersection of Highway 60 and County I) in Cedarburg, WI. ARRL sanctioned, plenty of free parking, food, refreshments. Bowling, and game-room available. Advance Tickets \$2.00 (\$3.00) at the door. 4-foot tables \$4.00. It is recommended that tables be reserved in advance. Contact O.R.C. Swapfest Committee, 101 East Clay St., Saukville, WI 53080. (Include business size SASE.)

Sunday, May, 3, 1987. DeKalb Hamfest, Sandwich, ILL.

On Sunday, June 14, 1987, The Great River ARC of Dubuque, IA., will sponsor the annual Cassville Hamfest and Fish Fry at Cassville, WI. Catfish will be available for approximately \$2.50 per serving. Bring your own table service and a dish to pass.

The Fish Fry will be held in the Cassville City Park, which is on the bank of the Mississippi River in the south end of Cassville. There will be a talk-in on 52 simplex and on the Dubuque repeater, 147.84/24.

There will be some tailgating of Amateur gear so anyone wishing to do some trading is most welcome.

Anyone who plays a musical instrument is invited to bring it along. There will probably be some jamming by N9GBY, WAØDCB, NSØU, and KA9KLZ.

There are campgrounds located in the area around Cassville, and there are many interesting things to see, not to mention the fishing in the area.

More information can be obtained by contacting: Art Acheson Jr., WA9UXL, 117 Bluff St., Cassville, WI 53806. (608) 725-5239.

All Hams, their families and friends, or anyone interested in Amateur Radio are cordially invited to the Cassville Fish Fry and Picnic.

Sunday, June 21, 1987. Stevens Point, WI, 10th annual Swapfest and Family Picnic. Held at Bukolt Park on the Wisconsin River. Sponsored by the Central Wisconsin Radio Amateurs Ltd. Packet Radio demonstration. WNA meeting at 1:00 p.m. License Exams at 9:00 a.m. (see TESTPOINT for contact info.) Swaptables and Tailgate sales \$2.50. See ad with map elsewhere in this issue.

Saturday, July 11, 1987. The annual Eau Claire ARC Hamfest. Contact Gene Lieberg, 2840 Saturn Ave., Eau Claire, WI. 54703

Saturday, July 18, 1987. South Milwaukee Amateur Radio Club's Swapfest "87" at American Legion Post 434 in Oak Creek, WI. Buy, sell, swap, food, drinks, prizes and camping. Amateur Radio Exams. WAPR (packet radio) meeting. Tickets \$3.00.

Saturday, August 15, 1987. The Green Bay Mike & Key Club Swapfest.

Saturday, August 15, 1987. Rhinelander Swapfest, sponsored by Northwoods Amateur Radio Club and ARES. Contact Leonard Bauman, K9RMN, 1312 Dorothy St., Rhinelander, WI 54501. (715) 369-3296

Sunday, October 25, 1987. Kettle Moraine Radio Amateurs Ham, Computer, and Video Fest at Waukesha, WI. Contact: KMRA, 313 Hillview Circle, Waukesha, WI 53188

As a service to our readers, this section of Badger State Smoke Signals is available without charge to list your upcoming Swapfest, Hamfest, dinner, picnic, party or other event of interest to Radio Amateurs in Wisconsin and nearby areas. Send information to Ken Ebner, K9EN. (Sorry we do not list orgies.)

Club Meetings

BADGER AMATEUR RADIO SOCIETY
(W9YT - UNIVERSITY OF WISCONSIN - MADISON)

Regular monthly meetings are held at 7:30 PM on the 2nd Wednesday of every month while school is in session, in B314 Electrical Engineering Building.

CENTRAL WISCONSIN RADIO AMATEURS, LTD.
(STEVENS POINT)

Regular club meetings are held on the second Wednesday of the month.

EAU CLAIRE A.R.C.

The Eau Claire Amateur Radio Club meets on the second Tuesday of the month at the Parks and Recreation Building at Oxford and First Streets in Eau Claire. Meeting time is 7:30 P.M. Hams and guests are welcome. Travelers in the area are invited to use the club's wide-area repeater K9UXP on 146.31/91.

FOUR LAKES A.R.C. (MADISON, WI)
RED CROSS BUILDING, 4860 Sheboygan Ave, Madison, WI., first and third Tuesday each month.

FOX CITIES AMATEUR RADIO CLUB
Regular meetings at 7 pm, the third Monday

of the month at Roosevelt Jr. High School, 318 E. Brewster St., Appleton, WI 54911. 424-735-6294 for info.

GREEN BAY MIKE & KEY CLUB

The Green Bay Mike & Key Club meets the 2nd Thursday of each month at the American Red Cross Bldg., corner of Danz and Deckner in Green Bay.

GREEN FOX AMATEUR RADIO CLUB

Meetings are held the third Monday of the month at 7:30 p.m. at the Green Lake Town Hall located at the intersection of county highways K and N.

KETTLE MORaine RADIO AMATEURS

All meetings are held on the SECOND (2nd) Friday of each month.

MANITOWOC COUNTY RADIO AMATEURS

First Wednesday; 7 p.m. at City Hall, 817 Franklin St., Manitowoc, WI.

Second Wednesday; Red Cross Building, 1816 Washington St., Manitowoc, WI.

Spring Banquet: May 9, 1987 at the "Fawn", Wooland Dr., Manitowoc.

MENOMONEE FALLS AMATEUR RADIO CLUB

Meetings held the last Tuesday of the month at Security Savings & Loan in Menomonee Falls. Doors open at 7:30 p.m. Meetings start at 8:00 p.m. All Amateurs and persons interested in Ham Radio are welcome.

MILWAUKEE RADIO AMATEURS CLUB

All regular meetings of MRAC scheduled at Wauwatosa Savings and Loan Building, 7500 West State Street, will be held on the second Thursday of the month.

OZAUKEE RADIO CLUB

Meetings held every second Wednesday at 7:30 p.m. in the Saukville Community Center

RIVERLAND AMATEUR RADIO CLUB

Regular meetings are held at 7:30 P.M., on the first Tuesday of each month in the Onalaska Community Center in Onalaska, WI.

ROCK RIVER RADIO CLUB

The RRRC holds it's regular monthly meeting on the first Tuesday of the month at 8 p.m. The club meets at the Dodge County Sheriff's Dept. 141 N. Main in Juneau WI.

SHEBOYGAN COUNTY AMATEUR RADIO CLUB

Regular club meetings are held on the Second Tuesday of each month, at 7:00 P.M. at the Sheboygan Red Cross/Boy Scout building located at 2032 Erie Ave. in Sheboygan.

SOUTH MILWAUKEE AMATEUR RADIO CLUB

Meetings held at Legion Post 434, Shepard Ave., Oak Creek, on first Wednesday of the month. Auctions held at March and October meetings.

WEST ALLIS RADIO AMATEURS CLUB

Regular meetings are held on the second Tuesday of each month at St. Francis Savings, 9330 W. Greenfield Ave., at 8:00 P.M.

THE WISCONSIN VALLEY RADIO ASSOCIATION, WAUSAU

Holds regular monthly meetings on the first Tuesday of the month at 7:30 p.m. The location

varies, but information is available on the 146.04/64 repeater in Wausau.

YELLOW THUNDER AMATEUR RADIO CLUB (BARABOO, WI)

All regular meetings of YTARC are at the Baraboo Civic Center. Meetings start at 7:30 P.M. Monday meetings are held in room 20. All others in Room 25.

Meetings dates for 1987 are: Monday, May 18; Tuesday, June 16; Wednesday, July 15; Thursday, August 13; Monday, September 14; Tuesday, October, 13; Wednesday, November 11; and Thursday, December 10.

Let us know of your club meeting dates, and we will let others know of your meetings and activities. There may be Amateurs in your area interested in joining your club, or members of other clubs interested in making an interclub visit.

=====

MISCELLANEOUS MISCELLANEOUS MISCELLANEOUS

Oh what the heck -- items of interest:

Four Lakes Amateur Radio Club THE FEEDLINE

The Novice class recently ended had an exam pass rate of 95%. (16 out of 17 passed the exam)

Green Fox Amateur Radio Club (Green Lake) FOXTALES

Gary, KA9WKY, upgraded to Advanced, and will soon be sporting a new call.

Jack, KB9WC, has completed his homebrew HF linear.

Mac, N9CXX has given up the possibility of more snow this year, and has retired his skis for the season.

Rick, KA9VOA, has joined Air Force MARS,

Rock River Radio Club NEWSLETTER

On March 18, 1987, Brad Gehrt, KA9JDE gave a packet radio demonstration to about 100 police and fire department personnel. Also attending or helping were KA9FNE, W9IZG, W9BCU, K9FHI, WB9ZRE, KD9BK, N9AGH, and WA9CTW.

Taylor County Area Amateur Radio Club Taylor County ARES

Congratulations to: KA9VII who upgraded to General class and to KA9EOJ who upgraded to Advanced Class.

Mike Schoenfuss, WD9IKF now has a new call-sign, N9GHZ.

KA9UXN & N9FZS are new on 2-meter packet.

Our thanks to the above mentioned clubs and their bulletins for the information presented. Badger State Smoke Signals will be pleased to exchange bulletins and information with your club. Please contact K9ZZ or K9EN.

WISCONSIN AMATEUR RADIO GOLF OUTING

Badger State Smoke Signals would like to know if there are any golfers out there interested in participating in a state Amateur Radio golf outing. If you are interested, let Ken Ebner, K9EN know by post card, radiogram or packet. If enough interest, I will see what I can schedule.

fore de K9EN

The TEST POINT



The following are known locations where Amateur Radio license examinations are scheduled in the Badger State area.

May 2, 1987	Madison, WI
May 16, 1987	Waukesha, WI
May 16, 1987	Robbinsdale, MN
May 30, 1987	Milwaukee, WI
June 6, 1987	St. Paul, MN
June 6, 1987	Appleton, WI
June 20, 1987	Rhineland, WI
June 21, 1987	Stevens Point, WI
June 27, 1987	Waukesha, WI
July 18, 1987	Minneapolis, MN
August 9, 1987	St. Cloud, MN
August 22, 1987	Rhineland, WI
August 29, 1987	Annandale, MN (Robbinsdale ARC)
September 19, 1987	St. Paul, MN
September 26, 1987	Wisconsin Rapids, WI
October 17, 1987	Rhineland, WI
October 17, 1987	Minneapolis, MN
November 7, 1987	Richfield, MN (Robbinsdale ARC)
December 5, 1987	Stevens Point, WI
December 19, 1987	Rhineland, WI
December 19, 1987	St. Paul, MN

Monthly, First Sat. Racine, WI
Monthly, Third Sat. Loves Park, IL

GENERAL RULES FOR ALL EXAMINATIONS:

All examinations require filing an FCC Form 610 and advance registration at least 30 days before the exam date. (Some VECs may permit walkins. Check with sponsor to find out if they allow walkins.)

To register for these examinations, you must first secure a copy of the current FCC Form 610 and fill it out completely (AND CORRECTLY). Get your form from the FCC Field Office, the ARRL or Badger State Smoke Signals. Send a 22¢ SASE if you request one from the ARRL or BSSS. In most cases, forms can also be obtained from the sponsoring group. Remember-- you must file at least 30 days in advance unless otherwise indicated.

ARRL/VEC examinations require a check for \$4.35 payable to "ARRL/VEC".

The FCC now requires applicants to show their original Amateur license to the VEC. As in the past, a copy of your license must be attached to your FCC form 610.

Additional information is given below.

MILWAUKEE METRO AREA TEST TEAM - MRAC/VEC

Saturday, May 30, 1987 - 9:00 a.m.

Room 256, Wauwatosa East High School at 74th and Milwaukee Avenue - use the east (74th Street) entrance. Note: 74th Street is a one-way south street.

Bring your original license and a good photocopy, a pen, and \$4.25 for the exam fee. Walkins accommodated if time permits.

Register in advance on a Postal Service 14 cent postcard; print the grade of license you are applying for, your name, address, and telephone number. Send to:

The Milwaukee Radio Amateurs' Club, Inc.
N50 W16328 Pin Oak Court
Menomonee Falls WI 53051.

MILWAUKEE VOLUNTEER CORE GROUP - De Vry VEC

The following exam sessions will be held in rooms 50207 and 50225 at the Waukesha County Technical Institute:

May 16, 1987 -- June 27, 1987

Walkins are welcome at all exam sites. Free coffee served only at WCTI. Exams begin at 9:00 a.m. at all sites. Novice through Extra Class exams will be given. Please bring your current license (if any) as the examiners are required to look at it.

If you are interested and wish to register for an exam, please send a post card with your name, address, phone number, date of the test session, and exams you wish to be tested for. Send the card to Syl Janczak, WD9JKZ, 3127A West Madison, Milwaukee WI 53215.

Exams for shut-ins are given by appointment only.

MADISON WI - MAY 2, 1987 - ARRL/VEC

The exams take place at Fire Station No. 2, on Grand Canyon Dr. The exams start at 8:30 a.m. Pre-registration is strongly recommended.

Contact: Art Albright at (608) 249-0590

APPLETON, WI - ROOSEVELT JR. HIGH SCHOOL

318 E. Brewster St., Appleton, WI

Contact, KD9IA

RHINELANDER, WI - NICOLET COLLEGE

Science Center, Fireside Room - (DeVry VEC)

Contact: Len Bauman, K9RMN

1312 Dorothy St.

Rhineland, WI 54501

(715) 369-3296

WISCONSIN RAPIDS, WI - VOCATIONAL SCHOOL

Contact: Gene Santoski, K9UTQ

1220 18th St., So.

Wisconsin Rapids, WI 54494

(715) 423-6368

STEVENS POINT, WI - BLUE TOP INN

Contact: Joe Larson, N9JW

644 Portage St.

Stevens Point, WI 54481

(715) 344-1182

RACINE, WISCONSIN - ARRL/VEC

First Saturday of each month except during summer and the Christmas holidays.

Exams are given at the Red Cross Building, 4521 Taylor Avenue, Racine WI 53405.

Bring your original license and a photocopy of it; also bring some form of photo identification, such as a Wisconsin photo driver's license, and a check for \$4.35 payable to ARRL/VEC.

Pre-registration at least 40 days before the test is desired, but walkins are permitted and will be accommodated until the extra supply of exams is exhausted.

Send pre-registration to: William R. Firchol, Jr., N9DMP, 1912 27th Street, Kenosha WI 53140.

LOVES PARK, IL

Third Saturday of every month.

Northern Illinois Volunteer Examiners (DeVry VEC). Held at North Suburban Library on North Second Street in Loves Park, IL.

Contact: Gene Melton, AK9N

2901 Billie Rd.

Rockford, IL 61109

(815) 874-6867

MINNESOTA TESTS

Gopher/Minneapolis ARC: Robbinsdale ARC:
 Avery Finn, KØHLA Ron Schultz, NAØU
 P.O. Box 53 6308 Peacedale Ave.
 Hopkins, MN 55343 Edina, MN 55424
 (612) 448-5384 (612) 920-7473
 St. Paul ARC: St. Cloud ARC:
 Jay Bellows, KØQBE P.O. Box 141
 997 Portland Ave. St. Cloud, MN 56302
 St. Paul, MN 55104 Leonard E. Carlson
 (612) 222-7253 (612) 252-0414

This section of Badger State Smoke Signals is available to publicize your Volunteer Examiner Amateur Radio license examination schedules.

Please send us your schedules of dates, times, and locations that you will be conducting examinations and we will include the information here. Be sure to include contact address and any other necessary requirements. Information should be sent to K9EN or K9ZZ at the address shown on page 2.

MILWAUKEE VOLUNTEER CORE GROUP
EXAMINATION RESULTS

 From Syl Janczak, WD9JKZ
 Core Group Leader

On Sunday, March 22, 1987, the Milwaukee Volunteer Core Group, under the sponsorship of the Tri County Amateur Radio Club, conducted exams during their swapfest at Jefferson, WI. Congratulations are in order for the following:

Kevin Sebrowski, KA9RRI, Novice to Technician
 Michael Bauer, KE9BZ, Advanced to Extra
 Jason Sweeney, KA9WDA, Novice to Technician
 John Brunhart, KB6EGI, Technician to General
 Karen Knapp, KA9WSD, Novice to Technician
 John Kimberly, N9FQT, General to Advanced
 Edward Pfeifer, KA9WSK, Novice to Technician
 Margie Pasley, KA9TIM, Novice to Technician
 Timothy Richardson, Novice to Technician
 Curtis Phelps, Novice to Technician
 Helen Thomas, KA9WOT, Novice to General
 Ronald McCune, KA9UEQ, Novice to Technician
 Philip Mann, WB9CWD, Advanced to Extra
 Lee Trauts, KA9VHX, Novice to Technician
 Susan Pari, KA9VYU, General to Advanced
 Mike Tucholski, KA9VFE, Advanced to Extra
 Timothy Loeffler, KA9WQG, Novice to Technician
 Terry Shaw, KA9WBX, General to Advanced
 Ray Strackbein, KA9WVM, Novice to Technician
 Squire Luttrell, KA9KFC, Novice to Technician
 William Stuart, WB9ATY, Technician to General
 Albert Pratt, WA9DYE, General to Advanced
 Kyle Miller, KA9VME, Novice to Technician
 Paul Marowsky, N9E0Z, General to Advanced
 James Benak, KA9ACE, Technician to General
 Richard Bucci, KA9MTF, Novice to Technician

YTARC BIRTHDAY:

Harry W. Westlund K9EHJ	May	7
Bob Johnson WB9EIW	May	11
Peter Sweeney WD9JIB	May	13
Steve Schwoegler WB9RNL	May	29
Phil Anderson W9TP	May	31

Yellow Thunder

Amateur

Radio

Club

K9ODK
WB9FDZ

The next meeting of the YTARC will be held on Monday, May 18, 1987, at 7:30 p.m. in room 20 of the Baraboo Civic Center.

The March 14, 1987 meeting of the Yellow Thunder Amateur Radio Club was called to order by President, Steve Schwoegler, WB9RNL at 7:51 p.m. Members in attendance were:

Pete Sweeney, WD9JIB	Reedsburg
Harry Mayland, K9FFT	Baraboo
Art Kleefisch, W9WSS	Baraboo
Jim Decker, WB9UQT	Baraboo
Ken Ebner, K9EN	Portage
Harry Westlund, K9EHJ	Baraboo
Steve Schwoegler, WB9RNL	Wisconsin Dells
Jim Romelfanger, K9ZZ	Baraboo

The Minutes of the last meeting were approved as read. Jim Decker, WB9UQT, gave the Treasurers report as:

Total balance \$242.02
 Operating balance 211.64

James also read a list of members who were in arrears in their dues and final notice for payment will be mailed to these members.

There was no old business for discussion.

New Business: Ken Ebner, K9EN, read some of the latest ARRL bulletins regarding Novice enhancement and the status quo on the 220 MHz band feud. Steve Schwoegler, WB9RNL suggested the club consider giving license examinations on a scheduled basis and asked that ideas be submitted at a later meeting. He also asked consideration of the idea of the club setting up a 220 MHz repeater as part of a long range plan. Steve then read some current bulletins regarding recent law suits involving Ham towers.

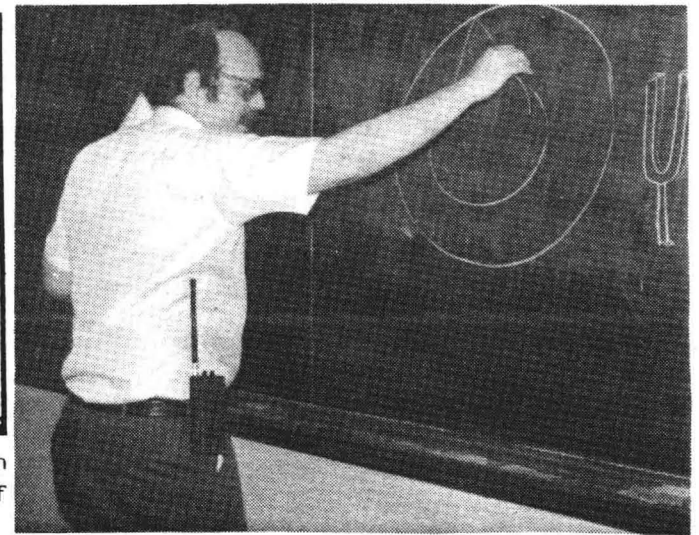
After some open discussion, on a motion by Harry Westlund, K9EHJ, seconded by Art Kleefisch, and unanimously approved by the members present, Evelyn Fox, WB9QZA, was awarded honorary membership in the Y.T.A.R.C.

With no further business, the buck night drawing was held and was won by Ruth Familletti, who was not present. Next meeting, the prize will be \$2.00.

The program for the next meeting will be on noise bridges. Meeting adjourned at 8:50 p.m. Program for this evening was a demonstration of oscilloscopes by Ken Ebner, K9EN, using a Sencore service scope and other scopes.

Respectfully submitted,
 Harry Westlund, K9EHJ, Secretary.

 The April 16, 1987 meeting of the Yellow Thunder Amateur Radio Club was called to order by President Steve Schwoegler, WB9RNL at 7:50 p.m. The following members and guests were in attendance.



YTARC President Steve Schwoegler, WB9RNL, explaining skip propagation at a recent YTARC Novice Class. -k9zz photo

Jim Decker, WB9UQT	Baraboo
Steve Schwoegler, WB9RNL	Wisconsin Dells
H. A. Reif	Baraboo
Art Kleefisch, W9WSS	Baraboo
Harry Westlund, K9EHJ	Baraboo
Duane Grotophorst, KA9HKL	Sauk City
Bill Klinkner	Sauk City
Anne Klinkner	Sauk City

Jim Decker, WB9UQT, gave the Treasurers report. On a motion by Art Kleefisch, W9WSS, and seconded by Jim Decker, WB9UQT, the minutes of the last meeting were accepted as read.

Old Business: Steve Schwoegler, WB9RNL, opened a short discussion on 220 MHz repeaters. Since only one member in dues arrears paid up, a letter to those still unpaid will be sent before the next meeting.

New Business: Harry Westlund, K9EHJ handed out some new pamphlets issued by the ARRL. "Ham Radio a Community Resource". We have on hand a small supply for distribution when needed.

Harry also submitted the ARRL listing of audio/visual programs available. After a discussion of available programs, the Secretary will request a slide program from the ARRL for our June meeting.

With no further business, the buck nite drawing was held and the winner was O. F. Warning, W9OXN, who was not present. Next month's prize will be \$3.00.

Art Kleefisch, W9WSS, made a motion, seconded by Duane Grotophorst, KA9HKL, for adjournment. The motion passed.

The group then enjoyed a program and demonstration of noise bridges and antenna tuners.

Respectfully submitted,
 Harry Westlund, K9EHJ, Secretary.

SENTENCE SERMON

In those vernal seasons of the year, when the air is calm and pleasant, it were an injury and a sullenness against Nature not to go out and see her riches, and partake in her rejoicing with heaven and earth.

---Washington Irving

Wisconsin Nets Association Ltd.

WISCONSIN NETS

NET	WNA	FREQ	UTC	CDT	MANAGER
BWN	YES	3984	1100Z	0600	WD9IID
BEN	YES	3985	1700Z	1200	KA9RII
WSBN	YES	3985	2230Z	1730	WB9ESM
WNN	YES	3723	2300Z	1800	N9DGL
WSSN	YES	3645	2330Z	1830	N9BDL
WIN-E	YES	3662	0000Z	1900	WB9ICH
WIN-L	YES	3662	0300Z	2200	KC9CJ
NWTN	YES	34/94	2330Z	1830	W9ZZM
WCWTN	YES	31/91	2330Z	1830	KD9TT
GR.BAY	NO	72/12	0145Z	2045	WB9NRK
			THU.	WED.	
RACES	NO	3993.5	1715Z	1215	WC9AAG
			USB TUE. & THUR.		
RACES	NO	3993.5	1300Z	0800	WA9OAY
			LSB SUN.		

Section Manager's notes



Richard R. Regent, K9GDF
5003 South 26th Street
Milwaukee WI 53221

Frequency Coordinator WA9JOB requests up-dated information for all Wisconsin repeaters.

A young Wisconsin student, N9FZS, has been nominated by N9GHZ as a Maxim Award candidate.

By making some minor changes in his sleep schedule, KJ9I has worked 105 countries in 4-1/2 months on 160 meters. WB9EKL claims to have 222 countries confirmed using only satellites.

KV9U helps Riverland Radio Club members by combining League book orders, saves postage costs.

Fox Cities ARC has been officially designated as a Special Service Club.

June 4th through 6th, CWRA will again be helping Special Olympics.

See you June 6th when the Wisconsin Chapter of QCWA meets for a delightful dinner and interesting meeting, Fischer's Supper Club, Lake Delton, social hour begins 11:00 a.m., guests and visitors are welcome.

June 20th, Milwaukee City of Festivals Parade needs more Ham communicators, contact EC WB9SMM for details on how you can assist.

June 21st (Father's Day), CWRA will hold its Swapfest and Family Picnic at Stevens Point's Bokolt Park with free admission, ARRL booth, exams at Blue Top Supper Club with N9JW at 9:00 a.m. and the Wisconsin Nets Association, celebrating its 27th year, will have a 1:00 p.m. meeting.

June 27th, walk-in exams begin 9:00 a.m. at WCTI, Pewaukee with WD9JKZ.

On June 27th and 28th, earn 100 bonus Field Day points by sending a proper message to me or Section Emergency Coordinator, W9QAK.

CAND REPORT FOR MARCH 1987 X 796 MESSAGES IN 31 SESSIONS X D9RN REPRESENTED 100 PERCENT X WISCONSIN STATIONS KA9RII W9ODV KC9CJ W9CBE AND N9EAX X 73 - JERRY W5KLV NM.

GLASSARM REPORT (Wisconsin Slow Speed Net)

Lee G. Andreas, N9BDL
Net Manager
Route 1, 7600 Highway D East
Lake Tomahawk WI 54539

Traffic net statistics continue to slip. This may as well be the title of this report instead of the Glassarm Report. A glance at the numbers of this net for the first quarter of 1987 compared with the first quarter of 1986 bears this out.

The alarming thing is that it is not only true for this net, but most other nets of the Wisconsin Nets Association. If that isn't bad enough, this trend is also true across the country.

The switch to packet radio as a means of passing traffic has been blamed for the decline. Is that the main reason? I doubt it. The general population of licensed amateur radio operators has been declining. In addition, the band conditions have not been the most conducive to traffic handling. Also, when the band is such that it is hard to communicate, the natural tendency for a person is not to get involved in a new aspect of our hobby.

Everyone dreads checking into a net and making a fool of themselves, because they think everyone else is an expert on traffic handling. I still get a bit queasy when I pass a piece of traffic on a CW net to another ham that I know has been doing this every day for the past 25 years. That is NOT a valid reason for not getting involved in traffic handling, but it does enter the mind, and if the band is marginal, an instant excuse is available.

The net statistics for January, February, and March for the past two years are:

Checkins	Traffic Offered	Traffic Cleared	Time
1987	550	146	113 1459
1986	634	222	127 1621

Just because the numbers are sagging does not mean that we do not have a loyal following. Here are some of the stations that check in on a regular basis and the number of times they have done so in the past three months.

N9FVN	69	W9CXY	58	K9BED	39
W9NGP	67	NI9R	42	AG9G	31

To these six, I say, "TNX FER FB JOB." A special "TNX" goes to Paul, N9FVN, for joining this elite group and leading the pack. Paul is the most recent net member to receive a Section Net Certificate.

Every once in a while, I get extra pleasure from participating in the traffic nets. During the latter part of March, I was net control station on the WIN/E net, and after writing up the net report for submission to Larry, WB9ICH, I looked closely at the list of stations that checked in that night and found that every one, except me, was a member of the Quarter Century

Wireless Association. I don't even qualify for the "One Tenth Century Club" yet.

The biggest and most pleasant surprise occurred on the ninth of January. Again I was the NCS for WIN/E when the editor of Badger State Smoke Signals checked in. Thanks Jim. Join us more often and don't forget that WSSN meets at 6:30 p.m. local time on 3.645 MHz. If we can't get him to the WNA meetings, we might just make a net checkerinner out of him. Something about bringing the mountain to Mohammed fits in here.

Now, how about you, gentle reader? Don't you think you have put off checking into one of the many WNA affiliated nets long enough? If a patent medicine could use the slogan, "Try it, you'll like it" in its advertising, why can't I use it to get the net statistics for this net and all of the others back on the increase again?

The next big event for traffic handlers will be the WNA June meeting, to be held at the Stevens Point Hamfest on June 21st at 1:00 p.m. How about that, mixing business with pleasure. How long has it been since you took in one of these meetings and bought a boat anchor? Hope to see all of you there. Before you get to that meeting, join us on a net or two. Try it, you'll like it.

So, until the June meeting or the July issue of BSSS,

73, Lee, N9BDL, NM

WISCONSIN INTRASTATE NET - EARLY (WIN/E)

Larry Guthu WB9ICH
Net Manager
706 West Jennings
New London WI 54961

Well, here it is, time for some more written words of wisdom from your busy net manager, who sometimes feels like a stranger on his own net as of late, but with such good and dependable net control stations, things are running very smoothly.

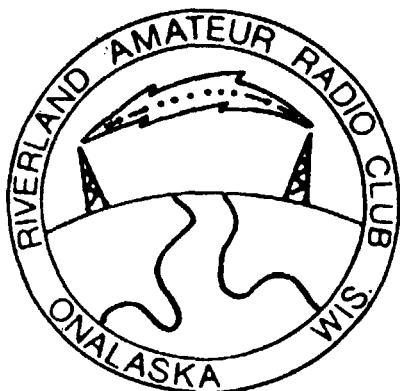
I guess we have no real major problems on the net, other than that we are in need of a net control for Friday nights, and in definite need of some extra help for liaison to the Ninth Region net. If you would like to help in either area, please let me know.

I see by looking at my checkin list that those who are coming in on a regular basis are slowly dwindling. I would like to see more of those on-and-off checkins become a bit more regular, and if there is something that is turning you people away, let me know, because the more people and the more areas we cover, the better we can handle the traffic brought down to us.

I also see that the traffic has been taking a small decline but still holding quite well, despite the early summer time conditions and the extra QRM from time to time. Otherwise, things on the net have been running fine and we are still holding our own.

Here is the list of the top ten checkins for the first quarter of 1987; 30 out of 60 days:

1. N9BDL	-	86	6. KA9OBP	-	54
2. W9NGP	-	85	7. WB9ICH	-	51
3. W9YCV	-	76	8. W9KU/7	-	40
4. W9CBE	-	64	9. K9GDF	-	36
5. W9CXY	-	61	10. NI9R	-	32



On April 7, 1987, at 7:30 p.m., the regular meeting of the Riverland Amateur Radio Club was called to order by President Gary Webb. Minutes of the March meeting were read from the Badger State Smoke Signals. The Treasurer's report was read and approved.

37/97 REPORT

Craig Goldbeck, N9ETD, reported that the new antenna mounts have been made and will be installed if and when we can locate the person who volunteered some tapered radial material.

OLD BUSINESS

Craig, N9ETD, gave a presentation regarding the purchase of club jackets. There will be a choice of colors and styles. Baseball style jackets will be \$25.50 each in 1 doz. lots, \$25.25 each in 2 to 3 doz. lots, and \$24.75 each in 4 doz. lots. Straight styles are \$15.50 each printed for 1 doz., \$15.25 for 2 to 3 doz. lots, and \$15.00 in 4 to 6 doz. lots. All quotes are for printed jackets. Knit cuffs are \$1.00 extra, first name on front is \$2.25, call letters on front are \$2.25. T-shirts are also available for \$5.50-printed. A motion was made and seconded that we have blue jackets, the exact color to be selected by Craig, N9ETD.

N9ETD also reported on site locations for a possible Ham Fest to be held in November, 1987. The Octoberfest grounds, including water, electricity, dumpster for \$300.00 plus \$100.00 for cleanup, although the club could save the cleanup costs by doing it themselves. Logan High School plus two custodians for \$425. Interstate fair grounds also available for \$375/day including restroom facilities, and the local 4-H club will take care of the refreshments. A decision will be made re: the Hamfest by May 1st, 1987.

Dick, KØJYB, informed us that the Amateur Radio demo at the Valley View Mall has been cancelled because of lack of interest by local radio stations in National Radio Week.

NEW BUSINESS

Kent, W9LZQ, is looking for a person to carry the NWS pager for Skywarn. Kent also informed us that a cross country bike tour from Oregon will be in the area in June and is looking for 75 meter liaison stations. They would also like permission to use the 37/97 repeater while in the

area.

Craig, N9ETD, announced that he will contact the local TV and radio Media regarding a public service announcement re: a local calling frequency for 10 meters. KV9U suggested 28.420 as a frequency. Motion made and passed.

The following people were signed up for the Field Day Committee: Steve Pavel-la, Craig Goldbeck, Dick Low, Al Hoffman, Ron Reed, Tim Stouffel.

Meeting adjourned at 8:20 p.m.

PROGRAM

Kent Hellman presented Steve Thompson of the National Weather Service. Steve thanked the Spotters for helping the NWS, saying that it gives comfort to the NWS knowing that we are out there during watches. Looks like we may be in for a 100-year bad storm cycle, and this may be a bad year. The last bad storm year was 1984. We are usually in for a storm or two in the last week of April. Steve also gave us some safety tips while on storm watches, such as getting into a ditch for protection and leaving your vehicle in straight line winds or tornados. He also warned us that lightning is very dangerous, even more so than hail, winds, or tornados. Inside your vehicle is a safe place during a lightning storm. If you are in the open, head for a ditch.

A Doppler Radar will be installed in 1990, but human reports are still essential.

Respectfully submitted:

Dick Low, KØJYB

MEMBERS PRESENT

Dick Low	KØJYB
John Young	W9KAZ
High Barker	KAØEJZ
Ernie Gershon	K9ZVU
Art Osborn	WØJDC
Wid Johnson	W9DM
Maty Johnson	(XYL W9DM)
Bob Pluntz	WD9FKV

Al Reinholz
Feroz Ghouse
Bill Wood
Tim Stoffel
Ron Reed
Craig Goldbeck
Greg Treharne
Phillip Long
Rick Williams
Kent Helman
Duane Fruechte
Van Elston
Gary Webb
Karl Olberg
Steve Pavella
Sarah Pavella
Jennifer Pavella

N9FZE
N9FJL/4S7FG
WB9YVI
KA9SJI
KD9OY
N9ETD
Guest
KA9RLI
KV9U
W9LZQ
W9HWQ
WA9FIO
N19V
W4ST
KA9TSW

(Harmonics)

CALL SIGN COMMENT DEADLINE EXTENDED BY FCC

In an order released April 7, the FCC has granted the ARRL request for extension of the comment deadline in PRB 3 to July 31, with reply comments due August 31.

PRB 3 is the FCC proposal that seeks to determine if the private sector could issue certain amateur call signs.

The FCC noted that this additional time would allow the ARRL Board of Directors, who meet in early July, to give full consideration to any proposal submitted by ARRL.

The FCC also said that input from the League will be useful in furthering the goal of establishing a full understanding by the amateur community of all the ramifications of a call sign system administered by the private sector.

(ARRL Bulletin NR 29, April 7, 1987)

NEW ADDRESS FOR BSSS EDITOR

Your Editor has moved from his 301 1/2 7th Street location in Baraboo. Effective now, editorial material, feature articles, exchange papers, photos, net managers' columns, and other sundry stuff for BSSS should be sent to Jim Romelfanger, K9ZZ, 412 1/2 Ash Street, Baraboo WI 53913.

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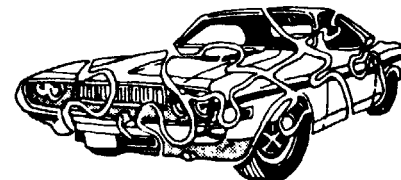
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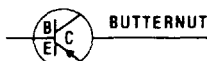
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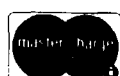


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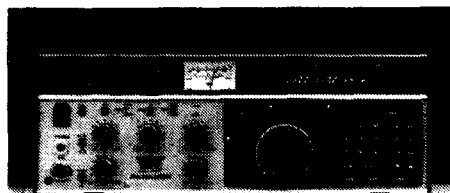
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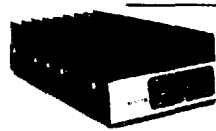
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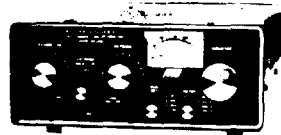
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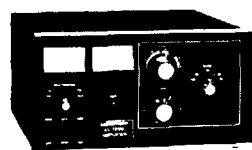


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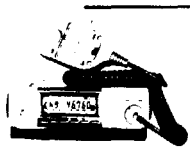


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EDITORIAL

BY *Jim Romelfanger* K9ZZ

Just a few things this month..

First, as you see on this month's cover, the comment deadline for the 220 MHz proposal has been extended. If you haven't already filed your comments, please do it NOW! Be sure you follow the suggestions made by the League in the boxed item on the front page. Hopefully, we can stop this proposal to reallocate 220-222 MHz to the Land Mobile Service.

Second, in last month's issue, I gave a rundown on the function of each BSSS staff member, but I forgot to mention that Ken Ebner, K9EN, also maintains the BSSS mailing list.

Third, I have QSYed my QTH to 412 1/2 Ash Street, Baraboo WI 53913. If you are a correspondent, please change my address in your records.

And, fourth, in Vrah Remah's "New Communication Mode" story last month, I typed the mode in as A-00. That should have been A-00 (A-Oh, Oh).

See you next month!

NEW EDITION OF FCC FORM 610 AVAILABLE FROM HQ

When the FCC recently released a copy of the new Form 610 which contained the changes caused by written exam credit and Novice Enhancement, one other fact came to light. It seems the FCC could not print and distribute its own new form until they had exhausted their present stock, a quantity of more than 100,000. Since the changes to the form were substantial, FCC did not object to the ARRL printing its own supply of the new Form 610.

To help the other Volunteer Examiner Coordinators (VECs) who don't have or can't afford typesetting, the ARRL VEC office has provided a master copy to each.

5000 of the new forms will be at the ARRL booth at the Dayton HamVention. The forms are also available from HQ upon request. Please include an SASE.

(From The ARRL Letter)

Guest Editorial

From Kerchunk
Sooland Amateur Radio Association

ARGUING WITH IDIOTS

"You can't argue with those ARRL idiots," was a comment I saw on my packet screen last night. It is not easy to refute such a statement because one never knows exactly who are the "idiots."

I am an ARRL member. Does that make me an idiot? Are elected officials of the ARRL idiots? Are the idiots salaried ARRL staff members? If so, why can't we argue with them? Because they won't listen?

One thing is clear. The person who made that particular observation has trouble arguing with "idiots" because he is out to lunch a lot. During the 3-day ARRL convention in Sioux City last year, this guy was out to lunch for three days.

By that, I mean he had important business elsewhere that made it impossible for him to attend the convention. Sure he did. And purple cows have wings. He stayed away because boycotting the meeting gave him pleasure.

Never mind that. The ARRL is not perfect. Should we then kill it? It has become fashionable, in some circles, to pretend to hate the ARRL, but it seems to me that those who are most vehement tend to be out to lunch a lot.

ARRL CONSIDERING 75TH ANNIVERSARY BOOK

ARRL is considering publication of a book commemorating the League's first 75 years. Potential contributors of interest are: (a) writers having personal knowledge and research material about Amateur Radio history prior to World War II; (b) writers having insight into various facets of Amateur Radio since 1945; and (c) editors with proven ability to be responsible for whole chapters. Please send a brief outline of your ideas, what role you see for yourself, and a short resume to Paul Rinaldo, W4RI, Publications Manager, ARRL HQ, 225 Main Street, Newington CT 06111. (From The ARRL Letter)

RECIPROCAL LICENSING INFORMATION AT HQ

Going abroad this summer? Thinking of bringing your HT but don't know how to request a reciprocal license? Relax, the Regulatory Information Branch at HQ maintains an extensive file on how to apply for a license in virtually every country, including many that the US does not have a reciprocal agreement with. Our files include the addresses of the government agency to contact, phone numbers, even the application forms.

Just write the Regulatory Information Branch at ARRL HQ (225 Main Street, Newington CT 06111), giving us the names of the countries you wish to operate in. Usually, most countries require a 6-week or more processing time (although some may issue a license on a walk-in basis) so please send us your request two months prior to your trip to avoid disappointment. Please include a large SASE with 3 units first-class postage.

(From The ARRL Letter)

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Meet W9CXY

By Les Peterson, W9YCV
9741 West Howard Avenue
Greenfield, Wisconsin 53228

On the afternoon of Saturday, March 7th, Rich (K9GDF) and I visited the man of mystery behind the call W9CXY. Now, let me introduce you to James Law, or "Jim", as we know him on the CW nets.

Jim met Rich and me at the reception desk in the nursing home where he is currently a resident. We talked with him for a while about his earlier years in radio, while seated in the visiting area of the lobby.

Jim first became interested in amateur radio while stationed in Hawaii with the Army Signal Corps during the years of 1927-1930. There was an amateur station there with the call OH6DV, which intrigued Jim, so he obtained an operator's license, which was issued by the Department of Commerce in those days.

With that license, he could operate the station. CW was no problem, as he was already a radio operator in the Signal Corps. Also, during those years, Jim became acquainted with landline Morse. He used to listen to the other fellows practicing it with their keys and sounders in the barracks in their free time. Jim picked it up readily, and soon was teaching others this Morse language.

During World War II, Jim was in the Army Air Corps, and was stationed in Adak, Alaska at a monitoring station. It was here that he became very proficient at copying Morse as we know it.

After the war, Jim returned to civilian life and went to work for what is now known as American Motors, doing engine assembly work. He retired from there in 1966.

It was in 1948 that Jim came to Milwaukee to take the FCC exam to get an amateur license again. He remembers his early station having a National SW-3 receiver. He became interested in traffic nets and received his first WIN certificate in early 1952.

In the years that followed, his call frequently appeared in the Wisconsin section news in QST. Jim received BPL many times, the A1 Operator's award, has been the recipient of the WNA Top Traffic Handler award with additional year tags, and made the Traffickers 2500 club. Jim is no stranger to 9RN, CAN and the TCC, having served in those CW net activities for many years -- and still is in some of them.

As you have perhaps surmised, traffic handling is his first love. Jim does enjoy rag chewing down in the Novice bands, and has been known to work DX. His thrill there was a contact with Antarctica some years back. His most unusual piece of traffic was a message in Spanish that he copied from a woman operator on the



James Law, W9CXY

east coast on CAN one night.

We lost the faithful services of Jim for about a year while he was recovering from a spell in the hospital. He returned to WIN and the other CW nets in early 1986, and, fortunately for us, frequently takes the 9RN liaison slot, as well as helping out in the higher level nets.

Jim currently operates from his room in St. Joseph Nursing Home in Kenosha, which he shares with another resident. Although the picture doesn't show it, he does use headphones so his room mate and other residents are not forced to get nightly code practice while he is operating.

A kindly member of the maintenance staff put up an 80/40 meter trap dipole for Jim, and assisted in the installation of his station. The equipment consists of a Ten Tec Omni C transceiver, Amp Supply LA1000NT amplifier, the Ten Tec Model 229A 2KW transmatch, and his faithful bug.

On March 12, Jim celebrated his 81st birthday anniversary -- a belated happy birthday, Jim, from all of us Wisconsin net members.

Before we went to Jim's room to take the picture, Rich presented him with a hard cover ARRL Handbook.

We are indeed fortunate and grateful that the Administrator and Staff of the nursing home have permitted and assisted W9CXY to return to the CW nets.



HERE and THERE

Badger State Smoke Signals congratulates Steve Polishinski, WB9YSD, Verona, on winning first place in the individual competition in the recent Engineering Expo, which is held every two years on the University of Wisconsin-Madison campus. Steve won his category over 15 other entrants.

Steve's winning project is a "talking multi-meter," designed for use by blind radio amateurs. The device, which can be used with any radio having a digital read-out, has five operating modes:

Mode A provides synthesized speech reading of the operating frequency.

Mode B provides synthesized speech readings of up to 16 different meter

indications, such as SWR, S-units, beam heading, etc.

Mode C allows the operator to tune his transmitter using the pitch of an audio tone.

Mode D provides automatic setting of the antenna rotor (enter the desired antenna heading on a key pad, and the heading will be set automatically.)

Mode E provides quasi-frequency entry to the radio.

Well done, Steve!

Badger State Smoke Signals would be happy to serve your club's members as your club's newsletter. The cost to your club is as low as \$4.20 per member per year (that's just 35¢ per member per month!) For full information, contact Ken Ebner, K9EN, 822 Wauona Trail, Portage WI, or call Ken at (608) 742-3560.

Identify yourself with our custom engraved call pins

1 line 1"x3"\$1.00
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FALLERT'S ENGRAVING
27 Verlynn Ave. • Hamilton, OH 45013

PARADE COMMUNICATORS NEEDED

The Milwaukee County ARES is now recruiting volunteers to assist with the City of Festivals Parade (June 20) and the Great Circus Parade (July 12), both of which are held in downtown Milwaukee.

This will be the fifth year of the Festivals Parade and the third year of the Circus Parade. Both are "monsters" in terms of logistics, crowds and communications traffic. At least two VHF circuits are in almost constant use prior to and during the parades.

Extra help is needed. Every year the personnel situation has been tight. Depending on local signups, at least 10 and perhaps more out-of-town volunteers would be most welcome.

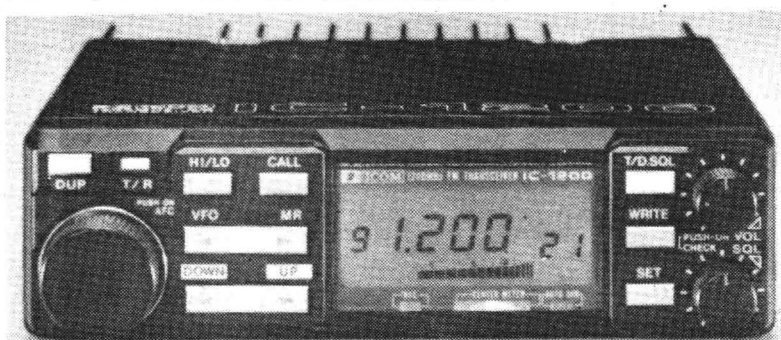
Most of the communications is conducted on 2 meters. Two repeaters are designated, with alternate frequencies for overflow. One channel is used for parade administration and the other for first aid/Red Cross traffic. A 450 MHz channel is used as an intercom. A synthesized two meter HT is essential, as are extra batteries.

If you wish to sign up, forward the following information to John Leekley, WB9SMM:

1. Name, call, address, phone number.
2. Which parade (or both) are you volunteering for; City of Festivals, Circus, or both?
3. Can you walk the route (about 3 miles) if assigned?
4. Do you have a 450 MHz HT?
5. Any other comments or questions.

Send your signup information to John Leekley, WB9SMM, W169 N8480 Sheridan Drive, Menomonee Falls, WI 53051, phone (414) 251-7056. Phone for answers to questions, but not to sign up, please. Also, if WB9SMM gets his packet system back up, you can connect and leave a sign up message via packet radio.

A briefing paper will be sent to all volunteers a few days prior to the parade. All volunteers from out of town should plan an early arrival (9-10 a.m. at the latest) in order to have time to pick up identification materials, revised roster and any last-minute instructions. Parking will be extremely tight, and little provision is made for volunteers. Plan accordingly.



ICOM IC-1200 1.2 GHz TRANSCEIVER

New Gear

ICOM IC-761 HF TRANSCEIVER

"A new era dawns" with the introduction of ICOM's new IC-761 HF base station transceiver. Incorporating advanced new features, ICOM's IC-761 represents a new era in ICOM HF transceivers.

The ICOM IC-761 measures approximately 17 inches wide by 6 inches high by 15 inches deep, and is conservatively rated at 100 watts output on CW, SSB, FSK and SSTV. The transmitter's 28 volt power amplifier boasts two husky 2SC2904's operating in push-pull. An internal whisper quiet cooling fan and large heat sink are included for continuous 100% duty cycle operation.

The IC-761 also includes a built-in switching-type AC power supply plus a built-in automatic antenna tuner. The tuner is capable of matching a wide range of impedances from 16 ohms to 150 ohms.. a range significantly higher than competitive units.

Transmit frequency ranges include all authorized and proposed amateur radio bands from 160 meters through 10 meters plus sufficient overlap for MARS and CAP

ICOM IC-1200 1.2 GHz TRANSCEIVER

ICOM announces the compact IC-1200 1.2 GHz transceiver for mobile or base operation. Ideal for Novices under the Novice enhancement program, the IC-1200 covers 1240-1300 MHz.

Featuring a simple-to-use front panel and large LCD readout with an automatic dimmer circuit, the compact IC-1200 has 21 memory channels, ten watts output power, all subaudible tones built-in, frequency scan and memory scan.

The IC-1200 incorporates ICOM's AFC (Automatic Frequency Control) function which automatically adjusts the receive frequency to the frequency of the transmitting station.

Two new options for the IC-1200 are the UT-28 digital code squelch unit to incorporate a system of digital coding and decoding, and the UT-29 tone squelch unit to encode/decode subaudible tones.

operations.

The IC-761's receiver tunes continuously from 100 KHz through 30 MHz with sensitivity exceeding .15 microvolts. The receiver is trip conversion, superheterodyne, featuring a low noise, direct-feed mixer circuit. Dynamic range is 105 dB with a selectable AGC action.

Receiver performance is further enhanced with passband tuning, IF shift, IF notch, and a dual width adjustable level noise blanker. Frequencies may be selected via the main tuning knob or entered from the front keypad or from a computer interfaced with the ICOM "CI-V" interface kit. Thirty-two memory channels are available with direct memory channel input to VFO "A" or "B" for semi-duplex or split-band operation.

Special CW features include a built-in electronic keyer and a steep-skirted narrow CW filter. CW and RTTY selectivity is 500 Hz at 6dB and 1,000 Hz at 60dB. The audio notch null is greater than 45dB. Semi and full break-in is rated at 60 WPM.

The IC-761 carries a one year warranty from the date of purchase, with factory support from four regional service centers located in Atlanta, Georgia; Bellevue, Washington; Irving, Texas; and Vancouver, British Columbia.

The IC-761 will be available for delivery in April. Pricing is yet to be announced.

(ICOM News Release)

The IC-1200 will be available in May 1987; price to be announced.

(ICOM News Release)

ICOM IC-375A 220 MHz BASE STATION TRANSCEIVER

ICOM introduces the first 220 MHz base station transceiver available, the IC-375A.

This deluxe all-mode base covers 216-230 MHz and has 99 tunable full function memories, passband tuning, a notch filter, noise blanker, built-in SWR bridge, semi or full CW break-in and a multi-function meter. The new IC-375A also has a velvet smooth tuning knob and easy-to-read amber LCD readout with variable backlight.

Four scanning systems are available: band, programmable, mode and memory

(Continued on next page)



ICOM IC-761 HF TRANSCEIVER

IC-375A 220 MHz TRANSCEIVER

(Continued from previous page)

scan with selectable lock-out (scans 99 memories in five seconds!)

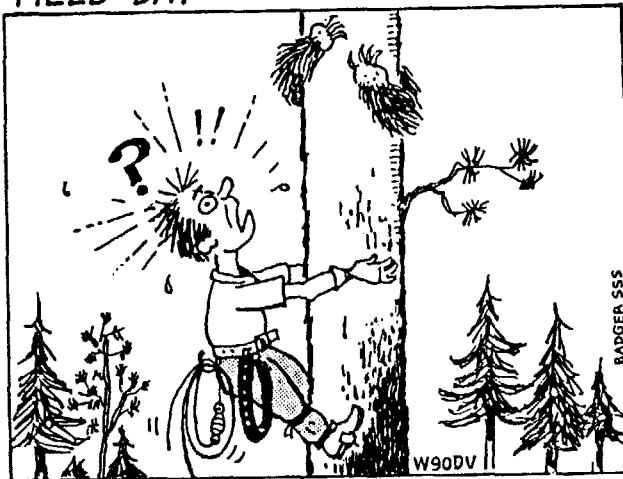
All subaudible tones are built-in and the actual subaudible frequency is displayed. Standard repeater splits are built-in and odd splits are programmable.

The 25 watt IC-375A is similar in design to ICOM's compact base station line: the IC-735, IC-275 and IC-475.

The IC-375A will be available in June 1987; price to be announced. It's the base station transceiver 220 MHz enthusiasts have demanded, and is also applicable for licensed enhanced Novices.

(ICOM News Release)

FIELD DAY



MOVING? Keep your Badger State Smoke Signals coming on time - send your new address to Ken Ebner, K9EN, 822 Wauona Trail, Portage WI 53901.

Unusual Trivia Quiz

Gene Santoski, K9UTQ
1220 18th Street South
Wisconsin Rapids WI 54494

1. What was the name of a radio manufacturer in Council Bluffs, Iowa?
2. What do the letters GDO represent?
3. What is the new Novice 10 meter allocation?
4. What frequency is used on the Bayfield 2M repeater?
5. Who is the Central Division Director?
6. Where is the Radio Amateur Callbook published?
7. What is the call-letter prefix for Singapore?
8. What is the time difference between UTC and CDST times?
9. We have a third-party agreement with Jordan - true or false?
10. As an OSCAR satellite moves toward you, the frequency of its signal will increase or decrease?

Send your answers to K9UTQ; a prize will be awarded to the person submitting the most correct answers after 12 total quizzes have been published. Good luck!

APRIL QUIZ ANSWERS

1. 16, including Canada
2. Audio frequency shift keying
3. 3 KHz
4. K9UTQ
5. Station of origin
6. High pass
7. 7100-7150 KHz
8. 486/f MHz = length (ft.)
9. Cheyenne and Commanche
10. How far are you from me?

NEW 440 MHz REPEATER ON THE AIR IN MADISON; ANOTHER PLANNED

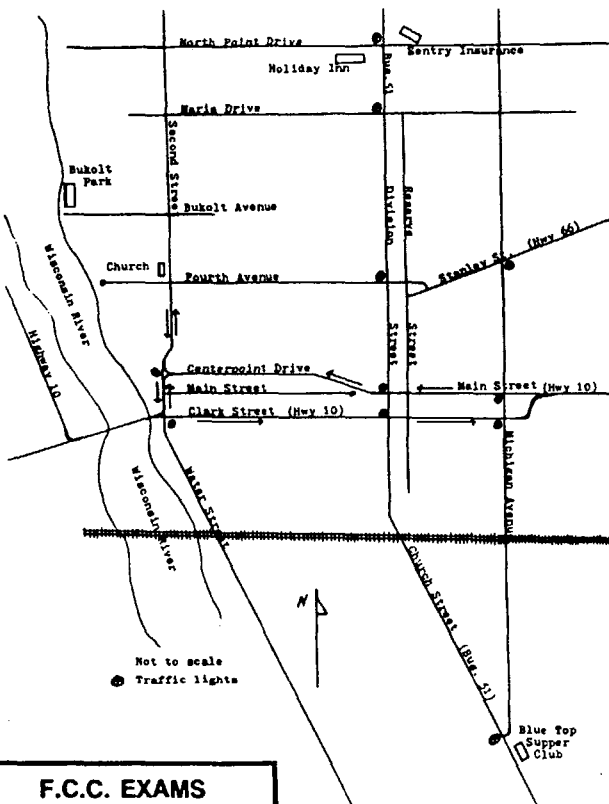
KD9UU/R is on the air in Madison, with output on 443.675, and input +5 MHz. The repeater is a Yaesu FTR-5410 with amplifier providing 40 watts to a Hustler G6-440 antenna. KD9UU/R is controlled by an ACC RC-85, with an update to an RC-850 planned soon. Another 440 repeater, on 444.5 MHz, is coming in Madison soon by WB9TAE. TNX KD9UU.

10th ANNUAL SWAPFEST AND FAMILY PICNIC

Sunday, June 21, 1987

Bukolt Park* on the Wisconsin River Stevens Point, WI

HAM GEAR BY TNT RADIO SALES



PACKET RADIO CONTINUOUS DEMONSTRATION

WNA Meeting 1:00 P. M.

8:00 a.m. **FREE ADMISSION** COFFEE

11:00 a.m. ... BRATS & HOT DOGS

2:00 p.m. PRIZE DRAWINGS

HAM PRIZE **FT-23R**
2 METER HT

More Than \$1000 Worth Of Prizes!

- *BEVERAGE STAND
- *INDOOR LODGE
- *OUTDOOR GRILLS
- *HORSESHOE COURTS
- *PICNIC TABLES

TALK IN
385/985
07/67 & 22/82
(WB9QFW)

SWAPTABLES and
TAILGATE SALES
\$2.50

John's Junk Box

By John W. Frank, WB9TQG
P.O. Box 5113
Madison WI 53705

A VERY LOW PASS FILTER

Several years ago, I bought one of those high-tech general coverage receivers that covers everything from 100 KHz to 30 MHz. The digital readout spoiled me; my old homebrew crystal calibrator now rests on a shelf in the basement. A built-in noise blanker, product detector, and audio filters made listening to this new receiver a joy instead of a chore. Then I tuned down to the longwave frequencies down below the broadcast band. In between noises from the AM broadcasters a few miles away from my QTH, I could hear an occasional longwave signal. However, before I could do any serious longwave listening, I would need a way to filter the broadcasters out of my receiver.

The result of this need is the "Very Low Pass Filter." This circuit is really nothing new or original. All I did was to take a standard low pass filter design and choose component values that would provide very little attenuation below 200 KHz, while keeping the AM broadcasters out of my receiver.

The inductors I used were junkbox RF chokes. If you don't have any chokes in your junkbox, you could try winding your own or use toroid cores and enamelled wire. The four capacitors in the filter were large mica caps from my junkbox. If you don't have mica caps, try polystyrene caps. Disc ceramic caps might work, but make sure you know their value in picofarads. Tolerance on ceramic caps is generally not as good as mica or polystyrene caps. The capacitance present in the filter will determine the frequency response and attenuation. In my filter, switch S1 is a small slide switch. If anyone plans to use

this filter with a transceiver that receives frequencies below the broadcast band, make sure that switch S1 is capable of handling the RF current that the transmitter provides to the antenna. In my shack, switch S1 is used to bypass the filter when I want to do some shortwave or broadcast band listening.

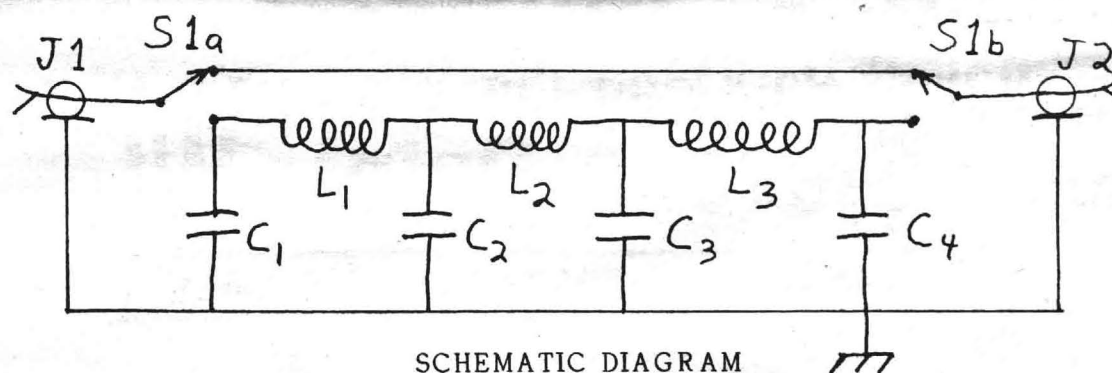
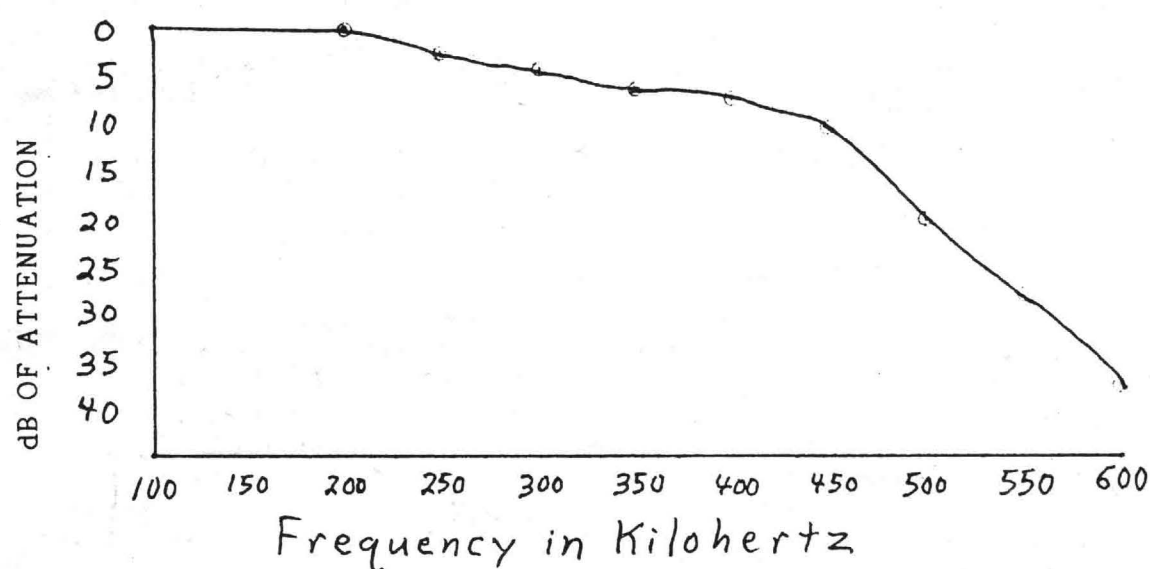
What can you expect to hear below 500 KHz? At first, I took it as a challenge to hear as many beacons as I could. Then I found marine radiotelegraph traffic. In my case, the radiotelegraph traffic turned out to be valuable code practice. Don't forget the license-free experimenters band between 160-190 KHz. European broadcasters

also use frequencies below our AM broadcast band, but I haven't heard any yet.

As is the case with any low pass filter, this one should be built in a metal box with tight overlapping seams. A perfectionist would use metal partitions to divide the box into three sections. I didn't do this and the filter works fine. As the graph shows, the filter provides almost 40 dB of attenuation at 600 KHz, with no measurable loss below 200 KHz.

Can I hear longwave signals now? Yes, and without AM broadcasters overpowering the signals I want to hear.

73 & happy homebrewing DE John WB9TQG



SCHEMATIC DIAGRAM

PARTS LIST

- | | |
|--|----------------------|
| C1 - 5600 pf. capacitor | J1, J2 - SO-239 |
| C2 - 15,000 pf. capacitor | L1 - 30 microhenries |
| C3 - 15,000 pf. capacitor | L2 - 38 microhenries |
| C4 - 5600 pf. capacitor | L3 - 30 microhenries |
| S1 - DPDT slide switch or 2 pole, 2 position rotary switch | |



Bill Paxson, KA9OTV, and Bob O'Conner, WD9HEX, enjoy an eyeball QSO over a cup of coffee at the MARA Swapfest on April 5, 1987.

K9ZZ Photo



Thanks Worldradio

Eau Claire A.R.C.

NEXT MEETING

The next meeting of the Eau Claire Amateur Radio Club will be Tuesday, May 12 at the Eau Claire Parks and Rec. Building. Lunch committee is Corrine KD9KL, Bob KA9OPS and Darold N9FLK.

APRIL MEETING SUMMARY

The meeting was called to order at 7:30 p.m. The minutes were approved as read. The treasurer's report was approved as read.

OLD BUSINESS

Ron WA9PAM reported that preparation for the Hamfest is proceeding nicely. Again, he urged members to talk up our hamfest and distribute flyers at events we attend.

John KA9RZL reports that a special events station for the Altoona Centennial is a good possibility. A separate car may be used for the station. The event will take place on June 18, 19, 20 and 21.

President Spratt announced that the rosters are ready. FLK will bring copies to Saturday and Thursday coffees or a copy may be obtained at the May meeting.

NI9R gave a brief status report on the Rehab Radio project. Volunteers are being sought for several dates that are still open.

W9NW and K9UXP gave brief reports on their travels to Rochester and Madison, respectively, for hamfests.

New callbooks have still not been obtained due to difficulties with the chosen supplier. The treasurer will delegate one of the Eau Claire contingent to Dayton to purchase books there if possible.

NEW BUSINESS

LJK brought up the subject of field day. Field day is June 27-28 this year. Phil felt that our previous efforts in Carson Park have been more oriented towards interesting the public than towards competition. It was suggested that there be two club stations, using different calls, for this year. Lane KD9OB offered to organize a low key effort while LJK will work towards a more competitive station. A sign-up sheet was circulated for each group. More on this as Field Day draws nearer.

The annual picnic was discussed briefly with nothing decided definitely at this time.

Phil KA9LJK announced that he would not be continuing with his Emergency Coordinator duties. Anyone interested in assuming that responsibility should contact

Phil for more information. The position is ARRL sanctioned and the holder must be an ARRL member.

An informal net on 10 meters SSB was proposed by LJK. This would be Sunday evenings after the Sunday Night Two Meter Net and would be at about 28.350 MHz. Nice chance to meet some local Novices and to ragchew without fear of the 'gator.

Steve KD9YO played a short tape demonstrating some of the features repeaters can be equipped with.

In answer to a question about the 31/91 repeater, Don K9UXP said that a switch of receivers is contemplated because of intermittent problems with the present receiver.

Steve KD9YO moved that the club put an advertisement for the Hamfest in the Badger State Smoke Signals. The motion was passed and YO was delegated to see to the details, provided the outlay did not exceed \$50.

ANNOUNCEMENTS

Bro. John KØVMW announced that the club had been the subject of a nice write-up in the last issue of the IMRA newsletter.

W9NW gave details on an upcoming VEC exam session.

LJK announced that the July meeting will include a program on amateur T.V. presented by KØXL and KØKTY of the Rochester club.

The business meeting was adjourned at 8:20. Following a brief lunch break, Dave Preuher - meteorologist from channel 13 - presented an informative program on severe weather and tornado spotting techniques.

Respectfully submitted:

Robin NI9R -- Sec. EARC

'THE ART OF SELLING AMATEUR RADIO'

The North American Teleconference Radio Network will present an evening with the pros on Friday night, May 8 (8 p.m. CDT). Sharing the microphone will be Roy Neal, K6DUE; "Frosty" Oden, N6ENV; and Bill Pasternak, WA6ITF. Each of these gentlemen have a unique and particular interest in Amateur Radio.

The North American Teleconference Radio Network is heard throughout the North American continent on more than 200 Amateur Radio repeater stations. A list of those stations participating can be obtained with an SASE to the net manager.

The May 8th program will deal with the "Art of Selling Amateur Radio." Spanning from the printed page to the space age, we will hear how Amateur Radio is at work today and catch an exciting glimpse of where it may very well be tomorrow. Through the years of experience, we will hear the where, when and how of obtaining credible publicity for Amateur Radio.

Questions will be accepted throughout the program from interactive stations across the continent. Join this exciting network of stations. For more information, write: North American Teleconference Radio Network, Midway ARC, Timothy

Lowenstein (Net Manager), P.O. Box 1231, Kearney, NE 68848-1231.

(From Worldradio)

(Editor's Note: The TRN is usually heard on 146.82/Wausau, 145.13/Milwaukee, and 146.76/Madison.)

HAMCANDID



Dan Schobert, W9MFG, ("The Rover from Plover") and Ken Trachte, N9ADN, Madison, enjoy a bull session at the MARA Swapfest. K9ZZ Photo

QUARTER CENTURY WIRELESS ASSOCIATION - WISCONSIN CHAPTER 55

We ran an item about the Wisconsin Chapter in our February issue. In that story, we listed the officers, but we left out the Board of Directors. They are:

Travis Baird, W9VQD, Milwaukee
Harvard Hamer, K9YHO, Baraboo
Jerry Van der Wymelenberg, W9VOW,
Green Bay

For information on QCWA, write to Les Peterson, W9YCV, Secretary, 9741 West Howard Avenue, Greenfield WI 53228.

FCC PROPOSES CHANGES IN BROADCAST STATIONS CALL LETTER ASSIGNMENTS

For the past 55 years, broadcast stations west of the Mississippi River began with a "K" and stations east of the Mississippi began with a "W". There were some exceptions to this rule. For example, the very first broadcast station, KDKA in Pittsburgh, is still using its original call sign. In its proposal, the FCC said that there is no longer any justification for maintaining these call sign restrictions, and that broadcast stations should have the option of obtaining a call sign beginning with either prefix letter.

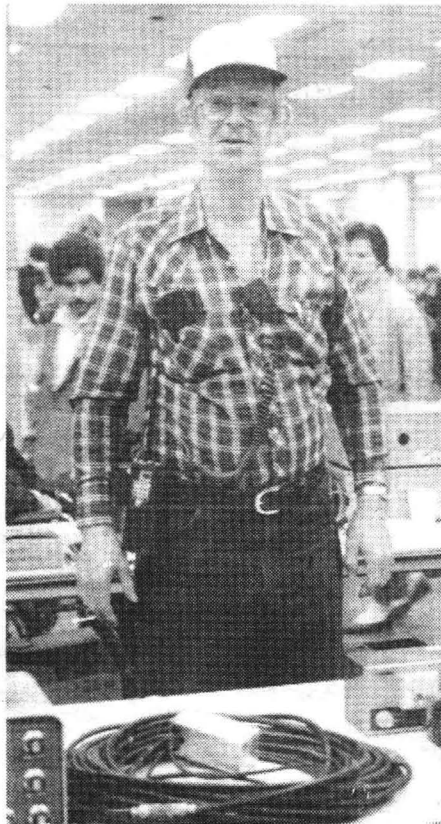
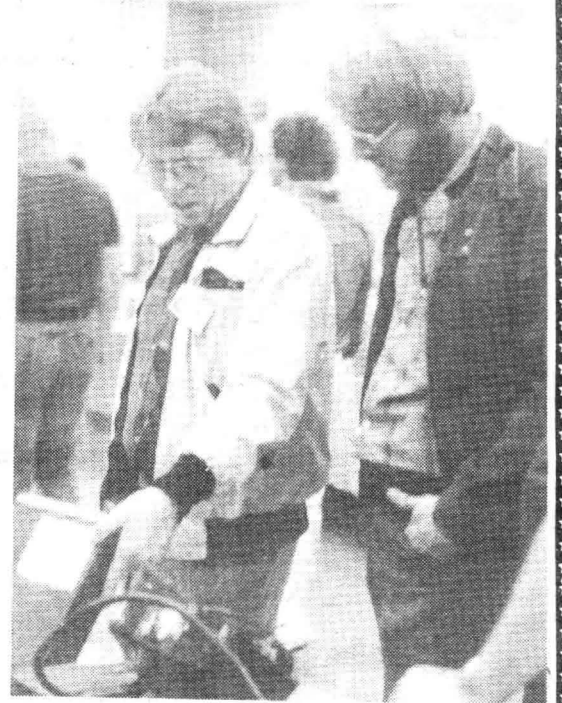
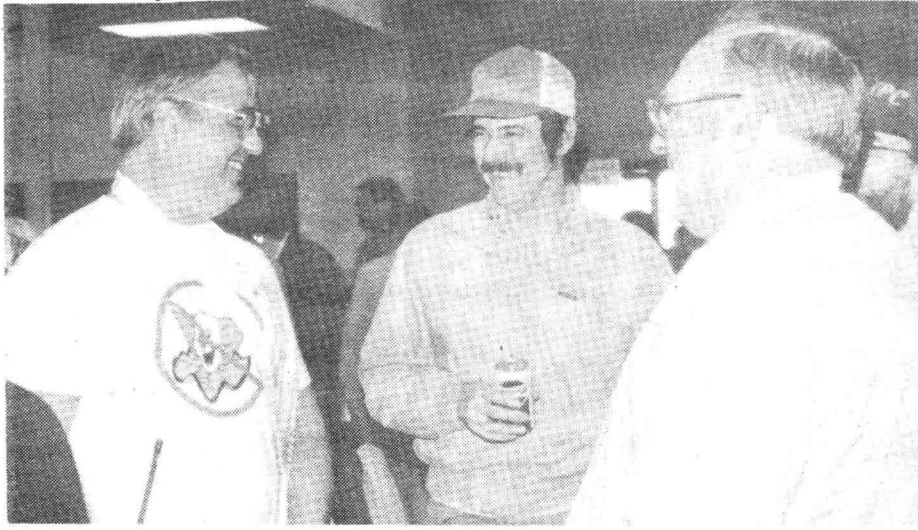
SILENT KEY

We are sorry to report the passing of
W9DIG, Loren Skalitzky, Waterloo, WI

M A R A

Swapfest

Candid



SWAPFEST PHOTOS

BY K9ZZ

Armed Forces Day 1987

The annual Armed Forces Day Communication Test is set for Saturday, May 16, and marks the 38th anniversary of this event, which emphasizes a continuing climate of mutual assistance and warm esteem between the military and Amateur Radio communities. The traditional military-to-amateur crossband operation and broadcast of the Secretary of Defense message are the featured highlights and include operations in CW, SSB and RTTY.

These tests give both Amateur Radio operators and shortwave listeners (SWL's) the opportunity to demonstrate their individual technical skills. QSL cards will be awarded to those Amateur Radio operators achieving a verified two-way radio contact with any of the participating military radio stations. Interception of these contacts by SWLs are not acknowledged by QSL cards; however, anyone who receives and accurately copies the Armed Forces Day CW and/or RTTY message from the Secretary of Defense can qualify to receive a special commemorative certificate from the Secretary.

CROSSBAND CONTACTS

The military-to-amateur crossband operations will be conducted from 1300 UTC, May 16, to 0245 UTC, May 17, 1987.

MILITARY STATIONS PARTICIPATING IN CROSSBAND OPERATIONS

AIR	NMH
2045th Info. Systems Group	Coast Guard Radio Sta.
Andrews AFB	Alexandria, VA
Washington, DC	
AAE	WAR
HF/MARS Radio Facility	HQ Army MARS Radio Sta.
Fort Sam Houston, TX	Fort Meade, MD
NMN	NPL
Coast Guard Comm. Sta.	Naval Comm. Sta.
Portsmouth, VA	San Diego, CA
NPG	NZJ
Naval Comm. Sta.	Marine Corps Air Sta.
Stockton, CA	El Toro, CA
NAV	NAM
HQ Navy-Marine Corps MARS	Naval Comm. Area
MARS Radio Station	Master Station
Cheltenham, MD	LANT
	Norfolk, VA

RECEIVING TEST

The CW and RTTY broadcast will be special Armed Forces Day messages from the Secretary of Defense to any Amateur Radio operator or SWL desiring to participate. A 10-minute tuning call will precede each transmission. The CW broadcast will be transmitted at 25 wpm beginning at 0300 UTC, May 17. The RTTY broadcast will begin at 0345 UTC, May 17, 1987 and transmitted at 60 wpm using 170 Hz shift. Both the CW and RTTY broadcast will be transmitted from the following stations on the listed frequencies:

AAE - 4018.5, 6988.0, 9990.0	NAM - 4005.0, 7393.0, 14400.0
AAG - 4021.5, 7309.5, 13994.5	NAV - 7372.5, 14389.5
AIR - 6995.5, 13997.5	NPG - 4010.0, 7365.0, 13975.5
WAR - 4028.5, 6997.5, 14403.5	

SUBMISSION OF TEST ENTRIES

Transcriptions of the CW and/or RTTY receiving tests should be submitted "as received." No attempt should be made to correct possible transmission errors. The time, frequency and call sign of the military station copied as well as the name, call sign and address of the individual submitting the entry must be indicated on the page containing the test message. Entries must be postmarked

Military stations will transmit on the below listed frequencies and announce the specific amateur band frequency being monitored.

Freq. (kHz)	Emission	Station	Freq. (kHz)	Emission	Station
4001.5	LSB	NPG	10259.5	CW	NPG
4010.0	CW	NPG	13927.5	RTTY	NPG
4015.0	CW	NMH	13975.5	CW	NPG
4018.5	LSB	WAR	13986.5	RTTY	AIR
4021.5	LSB	AAE	13992.5	RTTY/CW	WAR
4025.0	LSB	AIR	13997.5	CW	AIR
6970.0	CW	NPG	14375.0	USB	NPG
6995.5	CW	AIR	14385.0	USB	NPL
6997.5	CW	WAR	14389.5	USB	NAV
7301.5	LSB	NPG	14400.0	Varied	NAM
7306.5	RTTY	AIR	14403.5	USB	WAR
7309.5	LSB	AAE	14408.0	USB	AIR
7315.0	LSB	AIR	14440.0	RTTY	NMH
7346.5	LSB	NMH	14490.0	USB	NZJ
7365.0	CW	NPG	20937.5	USB	NMH
7372.5	RTTY	NAV	20992.5	USB	AAE
7375.0	RTTY	NZJ	20994.5	USB	WAR
7382.5	RTTY	NPL	20998.5	CW	NPG
7393.0	Varied	NMN	21460.0	USB	NPG
9990.0	RTTY/CW	AAE			

no later than May 23, 1987 and submitted to the respective military commands as follows:

STATION COPIED

ADDRESS

AIR	Armed Forces Day Test 2045ISG/DOJM Andrews AFB, D.C. 20331-6345
AAE, AAG, WAR	Armed Forces Day Test Commander, USAISC ATTN: AS-OPS-OA Fort Huachuca, AZ 85613-5000
NAM, NAV, NPG	Armed Forces Day Test Naval Communication Unit Washington, D.C. 20397-5161

(Thanks Worldradio)

FCC PROPOSES SALE OF HAM FREQUENCIES

From the GEARVAKf Bulletin
Winter 1986

According to Mr. Ralph D. Frenzy, an anonymous confidential source on the Federal Communications Commission's staff, the FCC is planning to sell to commercial interests many of the frequencies allocated to the Amateur Radio Service.

The informant explained that the purpose of the sale was to raise money for the Commission which has been operating under the most stringent budget in history.

(A GEARVAKf Bulletin article in the winter 1983 issue told of the FCC's abandonment of its duties effective January 1, 1984, and the dispatch of all employees to fishing trips in the Gulf of Mexico. -- ed.)

A memo said to be circulating through FCC offices characterized the coming sale as "a logical extension of the Administration's policy of getting the government out of everybody's business."

No mention was made of the effect upon ham radio except for a remark by FCC Commissioner Annie M. Shabop, who said, "Hams can communicate with flashing lights if they want to."

Several FCC members who objected to the sale were fired yesterday. The GEARVAKf Bulletin was not successful in contacting FCC spokesman Ralph R. Spiffie for an official statement because he was on a fishing trip in the Gulf of Mexico.

-- K8DMZ

I guess that is about all for this time; I don't have anything else to ask or complain about, so dust off the key or paddle and join us on 3.662 at 7 p.m. local time and help us keep that WINning spirit flying.

73 'til next time, Larry, WB9ICH

BADGER EMERGENCY NET

Lisa M. Harper, KA9RII, Net Manager
514 Fall Street
Eau Claire WI 54703

The BEN is alive and well on 3.985 at 12 noon every day. We welcome new checkins and encourage you to join us. The end of April marks my first year as net manager and it's been great. We currently have 33 "official" members and many more that check in semi-regularly. The requirement for membership in a WNA affiliated net is 30 checkins to that net in a 90 day period. When this has been completed, the station notifies the NM, who then sees to it that a net certificate is issued. These certificates are good for one year, and are renewable if the station has remained reasonably active. By no means is net membership required to check into the net. All are welcome.

Many thanks to K9EP for taking over the Official Bulletin Station responsibilities from KA9KLZ, who is no longer available at noon due to a (paying) job. Jerry read 25 bulletins during the month of March. Tune into the BEN if you want to know anything about satellites, current propagation, what's happening in the world of DX, or what's taking place in Newington.

New net control stations KA9OBP and K9EP. Welcome back to WB9PKL after a long absence.

Certificate of Merit to WB9WKO for injecting over 170 pieces of traffic into the NTS over a four week period in February and March. Ron teaches science at Menomonie High School, and every year includes a unit on amateur radio. The kids are required to send a radiogram to someone a minimum of 50 miles away from Menomonie as part of their assignment. Many get such a kick out of it that they end up sending several. Ron and I kept 3 skeds a day on 2 meters for weeks. He sent me the address and text and I then put it into standard message format and got it into the system. Because we handled so many messages several times a day, it wasn't possible for Ron to put them on the net from the HF station at the high school, but many of the students listened to the BEN and really enjoyed hearing their traffic passed. Many thanks to Ron for his support of amateur radio and the National Traffic System.

The net controls are outstanding, the OBS super, and the net members great. Our one weak spot is liaisons to D9RN. Since N9BGE has been vacationing, W9ODV, W9CBE, and myself have been handling the whole thing. WE NEED HELP. Even after BGE returns, we'll still be spread too thin. The liaison station takes the "thru" traffic from the BEN to D9RN and passes it to the appropriate station(s) on that net. The 9th Region consists of the states of Wisconsin, Illinois, Indiana, and Kentucky. Generally, there are only one or two checkins from each state. This is a small net, the only purpose of which is to move the traffic. There are no bulletins, second-goes, or what-have-you. When the traffic has been cleared, the net secures, usually in 15-20 minutes. Two stations are appointed to go to

CAND - Central Area Net Daytime; one as the 9th Region Receive and one as Transmit. Any traffic not bound directly for one of the states in the region is carried up to CAND by the Transmit station. The Receive station goes to CAND and brings back all the 9th Region traffic to the second session of D9RN (4:00 p.m. local time, 3.855). It is then dispersed to the sideband nets. The second session too only lasts about 15-20 minutes. The people are nice and easy to work with, and it doesn't take very much time. But it's quite a load for just a few to carry.

The reason I took so much space to explain the workings of the NTS - Cycle 2 is because I feel that most people don't understand what goes on on these nets and are perhaps intimidated. It's not hard. The only real requirement is a fairly good ability to handle traffic. These nets aren't looking for checkins; they're looking for people willing to relay traffic. D9RN first session meets at 12:45 p.m. local on 7.284 plus or minus; CAND meets 2:30 p.m. local on 14.322. Listen in and see how things are done. (Going to CAND is NOT a requirement of D9RN liaison stations.) If you discover that you won't be eaten alive and decide that you can spare an hour (or less) a week, please let me know. If you'd like to try just one session - first or second - that can be arranged. ANY help will be welcome. It is my responsibility as the BEN/NM to schedule liaison stations and I'd really like to hear from you if you're interested; if you're not sure, or have questions, contact me. I'll help all I can.

161 and happy spring!!

NO LIMIT FOR FOX CITIES

Richard R. Regent, K9GDF
5003 South 26th Street
Milwaukee WI 53221

Imagine getting 577 percent return on your investments within two years! Such vigorous growth sounds pretty extraordinary, doesn't it? Yet the Fox Cities Amateur Radio Club did just that with the size of its membership.

The recipe is simple. Two years ago, the 18 member group changed their name from Neenah-Menasha Club to the Fox Cities Amateur Radio Club, better matching the QTH mixture of members. Shortly afterward, they reorganized goals, concocted pizzazz programs, added a few secret ingredients, and then watched their club grow and grow. They hoped to get 87 members by 1987, but kept growing past that level to 104, with still no limit in sight.

President Jack Bigelow, KA9JOL, says, "The club growth is partly due to having practical technical programs at each meeting." Recent programs, lasting about one hour, included digipeaters, local repeaters, slow-scan TV, and packet radio. Jack, a Kaukauna Police Officer, formed HAMS (Highway Amateur Monitoring System) against drunk drivers, and is a hard working club promoter.

A TVI/RFI Committee is available to assist in proper operating tips, reduce interference problems, and encourage high operating and technical standards. As added technical support, one Club member is an ARRL Assistant Technical Coordinator.

The Club's first Hamfest was held March 14th at the Kaukauna High School. Despite a snow storm

earlier that morning which could have crimped attendance, Hamfest Chairman NR9J says, "It was a tremendous success."

The Volunteer Exam Testing held in conjunction with the Hamfest had 48 applicants, many from the Club's 15-week biannual Novice classes. Some candidates were trying to beat the March 21st Novice Enhancement deadline to get grandfathered under old rules.

Nearly a quarter of the Club members are Extra Class licensees.

Secretary George Croy, W9MDP, who is an ARRL Official Observer and Public Information Assistant, helps with operating etiquette instructions and writing the Club newsletter. George, an Appleton School Vice Principal, provides radio magazines to many local schools to encourage newcomers. The Club maintains its own library of Amateur Radio books for member use. Dozens of other members, such as the powerful Father and Son team of K9DHR and KA9MSR, pitch in to help the emergency government in severe-weather situations, tornado drills and County warning-siren tests. Many members who are ARES and RACES participants help on the weekly net to practice handling traffic in preparation for an emergency. A few are even ARRL Emergency Coordinators (EC) and Assistant ECs.

One member was asked if there were any drawbacks to the phenomenal club growth, and replied, "Yup. We finally had to get a bigger meeting room, but we love it more than ever and look forward to greeting newcomers."

The Fox Cities ARC has qualified and has been accepted as an ARRL Special Service Club. For more information about the specifics of this successful and active Club, contact George Croy, W9MDP, 318 East Brewster Street, Appleton WI 54911.

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HANDY HINTS

and IMMUTABLE LAWS FOR ANTENNA BUILDERS
(from Amateur Radio, Australia - via ARNS)

By reference to handbooks you can always prove that no useful antenna can be made from the material you have on hand.

Anything will work as an antenna to some extent, but nothing works as well as it should.

Never climb a tree you can't get down if the ladder vanishes.

Never assume an RF path is cold, unless you have checked it - with someone else's finger.

No matter how much wire appears to be on the spool, it is always at least 3" too short.

The race is not always to the swift nor the battle the strong, but that's the way to bet.

There's never time to do it right, but there's always time to do it over.

Anything good in life is either illegal, immoral or fattening.

A bumper sticker is the end result of coming up with a way to get in the last word.



THE WISCONSIN PACKETEER

Wisconsin Amateur Packet Radio Association (WAPR)
P.O. Box 436 Cedarburg, Wisconsin 53012-0436

RIVERLAND PACKET RADIO CONFERENCE

by Kent Helman W9LZQ

The second regional Riverland Packet Radio Conference was held Saturday, April 18 at Trempealeau. The number of amateurs attending this conference was 21, compared to the first conference's ten attendees. Those in attendance were packet operators from West-central Wisconsin and Southeastern Minnesota with guests from Minnesota's Southland and the Madison area.

Three demonstrations were available at the conference with the most interesting being a demonstration of WA9FIO's Packet Blaster Terminal program for Commodore computers. Other demonstrations consisted of a totally battery operated portable packet station and a gateway from 145.01 to 30 meters sponsored by W9HWQ. Van, WA9FIO gave a description of the Blaster program along with a discussion of its origins; goals in program development and features of operation. The program has been in a constant state of development for the past several months with the latest version, number 22 currently being available. It supports many needed features but manages to require relatively little memory for storing the program itself, leaving more RAM for buffers. In fact, the program is only 3.3K in length. Other unique features include direct transmission and reception to/from disk; a unique intensity feature for the screen that clearly marks received and transmitted text; scroll back buffer; buffer saves before and after reception and on line help. Many other features are incorporated also. The latest version is available on the W9LZQ-1 mailbox as a hexed file or you can send a disk and return postage to WA9FIO for a copy of the latest version.

An update was provided on use of packet operations for emergency and skywarn operations in the La Crosse area. Currently, the plan is to implement some use of packet radio in skywarn operations in the spring of 1988. No plan has been established yet as to how it will be utilized but will be developed in the coming year. Amateurs in the area have used packet in some emergency drill operations in the area but more experience is needed and a plan for use of packet will have to be developed.

Doug, W9WI and John, WA9SOU discussed the WAPR packet bandplan with the group and how it is designed to relieve the congestion on 145.01. The plan appears to have been accepted very favorably by packet operators. Three LAN's have been established in the state (see last issue of BSSS) and a great deal of discussion at the conference centered around whether or not the LaCrosse/Winona area should establish a LAN. The consensus was that La Crosse and Winona should share the same LAN. To this end, coordination is needed with Minnesota also. Gary, WD0HEB gave a report of frequency use in Minnesota. The only

established alternate frequencies in that state appears to be the Twinslan frequency of 145.05 and Waseca, MN which also uses 145.05. A decision made was to establish a LAN frequency of 145.09 Mhz for the La Crosse/Winona area on an experimental basis. To assist in the change, the W9LZQ-1 PBBS will open a second port on 145.09 in the near future. If warranted, a second digipeater may be established on 145.09 at some point in time when funding is available and depending upon availability of sites.

Another area of major discussion was networking plans and changes to digipeaters in Minnesota and Wisconsin. WD0HEB reported plans to install NET/ROM in several Minnesota digipeaters in the very near future. He provided a very complete report on NET/ROM operation and its theoretical benefits over what we usually think of as digipeating. Identified was the concern that it is still an experimental system that will more than likely see many changes in the future. No one standard has been set yet in how to accomplish more reliable, less time consuming, methods of sending packets to remote locations. TEX/NET was discussed as another alternative but would require additional expenditures in equipment and hardware, something to be cautious about while still in an experimental stage with no standardization. Wisconsin digipeater operators are also considering the options available, according to WA9SOU. He is leaning toward the NET/ROM option and was wondering about the LSE digipeater. The consensus at the conference seemed to be that at this stage of development NET/ROM would be the wisest choice at the least expense. If funding can be obtained, the LSE digipeater will probably be converted to NET/ROM in the near future. It should be noted that having the NET/ROM option installed in the digipeater does not prevent it from being used the same way as previously.

WA9FIO presented an interesting paper on the history and development of the LSE digipeater along with the equipment used, lightening protection and reliability of the system. He also has a section of the paper offering "free" advice for those planning to establish digipeaters or improve upon old ones. Included in the paper is a discussion of the development of packet radio in the La Crosse area. WD0HEB provided an interesting discussion on the development of packet radio in Minnesota and the development of Twinslan and Southlan. WA9SOU and W9WI discussed development of packet radio in the southern part of Wisconsin. Van's paper on "A Local Digipeater Experience - LSE -" is available on W9LZQ-1 in a file named: DIGI.LSE.

W9LZQ and W9WI gave a report on "How to get the most from a BBS in the least amount of time". An explanation of some of the more commonly misused or unused commands for the WA7MBL PBBS system was presented. Commands such as "L", "W" and "A" were detailed as well as how the system

makes use of subdirectories and how to find files in those subdirectories.

A special thanks to all of the La Crosse/Winona amateurs who were part of the planning for this conference is due. Thanks again, also to our out of area guests for their attendance and excellent contributions to help make the conference a success. The next conference is planned for October.

ATTENTION-64 & C-128 OWNERS

Van, WA9FIO continues to revise and improve his "BLASTER" packet terminal program for the Commodore C-64 computer. Latest version is available as a hexed file on W9LZQ-1 BBS. It is an excellent program and if anyone wants a copy, they can send Van a disk plus return postage and he'll be happy to send a copy.

W9FFC 40 METER BBS ACTIVE

W9FFC, Bob in Cherry Hill, NJ and formerly active in Milwaukee has activated a W0RLI type BBS on 7093.5. Even tho it works like a W0RLI BBS, it is running in Basic on a Radio Shack Mod III and supports autoforwarding and up and down loading of files. A neat system - give it a try when you are tuned up on 40 meters.

De Jon WD9GWZ (First user of his system)

THE "SLG" 145.09 DIGIPEATER

On Sunday evening, 4/12/87, I went up to the digi site & installed a GASFET preamp in the digi. I also realigned the receiver and checked out the TNC & all seemed OK there. The digi should hear much better now & will await your comments.

Thank you, Dan, WB9TYT.

(ED note: VARA members in Elgin, Illinois report good signal reports of 'SLG' and I have no problems working thru it from 50 miles away using 5 watts and a Ringo Ranger at 65 feet.

De Steve - WB9ZRE

NOVICE NET

There is a group of local Novices and Techs starting an informal net on 28.320 MHz. on Sunday nights at about 7:00 p.m. Everyone is welcome to join in the fun. Also keep an ear on 28.495 MHz.

73, Terry

W0RLI WINS DAYTON AWARD

We understand that Hank Oredson, W0RLI has been announced as the winner of this year's Dayton Hamvention technical achievement award for his work on the W0RLI packet radio bulletin board systems.

Scott - W3VS, HAMNET

Views of Packet Radio in WISCONSIN **VIEWS FROM A HILLTOP**

 TOM II

This column is intended to address low-tech and people issues in Packet radio. Hi-tech hardware and software developments will be covered by the engineering types with pocket protectors and programmable calculators.

Packet primer: The packet commands DWAIT (DW) and TXDELAY (TX) are sometimes confused and the TAPR documentation, while technically correct, can be confusing to the new packeteer. The DWAIT command controls the amount of time the TNC waits, after hearing any activity on the channel, before keying up the transmitter. In other words it does what all good amateurs should do, it monitors the frequency before keying up. Normal setting for DWAIT is 160 milliseconds (mine is set for 1 second). The TXDELAY command controls the amount of delay between keying up the transmitter and sending data. The purpose of this command is to assure the phase lock loop of a synthesized rig has enough time to stabilize on frequency. With older rigs and transceivers with external amplifiers the TXDELAY assures all mechanical relays have enough time to the transit from the receive contacts to the transmit contacts. Normal setting for TXDELAY is 300 milliseconds. If this is still confusing, drop me a note c/o WAPR or @WA9KEC PBBS and I'll try again.

"There are lies, there are damn lies, and then there are statistics"...attributed to Winston Churchill. With that quote in mind let's proceed to crunch some numbers. On Thursday the 9th of April, I accidentally left the rig on 145.010 MHz from 0100 hrs to 0500 hrs UTC. This error was discovered when the disk drive started coughing and gagging as it hit the full mark. This disk full of information yielded the following information on packet flow:

TIME UTC	1ST TRY	2-4 TRIES	5+ TRIES
0100/0200	71%	28%	1%
0230/0330	71%	25%	4%
0400/0500	51%	28%	21%

This was a relatively slow evening (the record for filling a disk is about 75 minutes). The message seems to be; if you operate in prime time with the RETRY command set greater than 4, you may be a pooper (poor operator on packet). If you find you must use a RETRY setting of 5 or more during prime time, perhaps you should use a local LAN port and/or try a different time. There are probably special cases where this suggested setting is not appropriate (but none come to mind now). During this period, beacons (ugh!) and digipeated beacons (double ugh!!), occupied less than 1% of the air time and were not involved in any collisions. I may have to rethink my views on the negative effects of beacons.

Coming next month...A continuation of the horizontal/vertical polarization issue. If you have any comments, questions, or have any ideas for this column; please send them to TOM II c/o WAPR or post them on WA9KEC PBBS (Send to TOMII).

TNC2 FILTER

Several months ago there were a series of comments about the MF-10 filter being used in TNC 2 and clones. In some of the messages, removal of the MF-10 was even recommended. Having used a TNC 1 with good success with the MF-10 for a couple years now, and having briefly tested it without the MF-10 on noisy signals, and found the MF-10 does improve things, these messages were puzzling to me.

I use the TAPR flat filter resistor header on my TNC 1 MF-10. Mentioning this to TNC 2 owners, they informed me no such thing exists for the TNC 2. In order to use this header, I modified my IC 251 so that it had a 3 Db audio bandwidth of 3300 Hz. As part of a dedicated digipeater project, a MFJ-1270B TNC was available for me to work on recently. With plans of trying out various MF-10 filters, I was aghast to find, 1) No schematic!, and 2) No MF-10! A quick call to MFJ and a schematic appeared in the mail in warp time. I also obtained a AEA PK-80 schematic as a guide to putting the MF-10 back in, and did so. Traces for the MF-10 and components were still on the MFJ circuit board. A 78L05 regulator was added to power the analog chips alone, and to reduce noise on the power line. It helped some, but the power lines were already much cleaner than an early REV 2 TNC 2 that was checked out at the same time. The results of the cloning of the TNC 1 flat filter design to the TNC2 clock frequency are shown below. With these modifications I ran a TNC match race, using the same audio to each. Computers on each TNC were set to capture the monitored packets to disk. Connecting to a mailbox via a marginal link, on a quiet frequency, I started a download. As the download progressed, the beam antenna was swung away and back thru the first digipeater direction. The resulting reduction of RF level to below copiable levels and back up again gave a good comparison test. Of the 60 mostly line length packets, neither TNC missed a packet copied by the other. The S meter reading on my IC-251 varied from S 1/4 (noise level) to S 2 during this test. Copy was noticeably lost at S 1/2 on steady signals. No RF preamp was used.

MF-10 TNC2 flat filter (TNC 1 flat filter design clone)

Ideal resistor value	Pins of header between	Pins of MF-10 conn'd between	TNC2 resistor no.
47.4K	1-16	1-4	R84
15.0K	2-15	2-4	R85
12.9K	3-14	3-4	R86
20.0K	6-13	19-4	No R no.
32.7K	5-12	18-17	R88
38.0K	6-11	19-17	R89
13.3K	7-10	20-17	R90
10.0K	8-9	IN-17	R91

73, Don, WB9MJN @ WB9MJN

Does anyone know how to make a TNC-2 operate with a computer baud rate of 600?

Verne/W9ZGS

MFJ-1274 TUNING DISPLAY PROBLEMS AND FIXES

This all started when I first plugged in my new MFJ-1274 and started tuning across some packet signals up on 20 meters. At first, the tuning display just seemed a bit awkward but, the more I used it, the more I realized that something was not right. I was unsatisfied with the way mine seemed to be overly sensitive and unsymmetrical in it's response to frequency error from one side to the other. I called MFJ and talked to a technician who told me that some of the boards got out of the plant without having a modification made to them. He told me to check the value of a resistor and change it if it were not right. In short, that was not the real problem. More on that later.

In addition to the above problem, there is much lacking in the documentation on this TNC. There is at least one case of refering you to a non-existent page. MFJ is looking into that and the lack of clear instructions on proper alignment of the unit using internal routines. For instance, there is nothing that tells you how to use the CALSET parameter, or how to set the free-run frequency of the DEMOD. I have done it with a counter, and the same with all four of the transmit tones, but you are supposed to be able to do all of this without outside test equipment and the book doesn't tell you how.

I had posted some explanation of what I had gone through on several of the BBSs and the next day received the following information.

MSG# TR SIZE TO FROM @ BBS DATE TITLE
 43 N 3967 AGON N7CL 870326 MFJ1274

Hello,

MY name is Eric Gustafson. I have just read your message to KC7CG about some modifications to the MFJ 1274 TNC. Since I had a hand in the design of both the tuning indicator and the modem used in this unit, maybe I can shed a little light on the problem you describe.

First, R205 really should be in the 180 to 200 K range in order for the LEDs to correspond as nearly as possible to 10 Hz per step. This gives you an idea at a glance of how far you need to step in order to get in tune. This is especially useful when using the up/down buttons on a synthesized radio to do the tuning.

Second, some of the early production 1274s were shipped with LM-3915 bar graph driver chips in the tuning indicator circuit (U204 & U205). The correct chip is the LM-3914. The 3914 is a linear step device and the 3915 uses logarithmic steps. Radio Shack carries the LM-3914. The symptom to look for here is that it is easy to get the tuning indicator to indicate to the left of center but very hard to get it to go to the right. Just in case, look inside & see which ones you have before trying to retune the DEMOD to make things indicate properly.

The absolute best way to set the demodulator center frequency requires an oscilloscope. If you have one available, the procedure is as follows:

1. Use the normal calibrate routine to set the two transmit tones.

A. If you have a frequency counter available just measure the two tone frequencies directly while sending them from the CALIBRATE mode.

B. If you must use the internal calibration system, calculate the CALSET values for the tones you wish to use and follow the normal procedure. The formula for CALSET of the modulator tones is:

$$\text{CALSET} = N = (525,000 / F) + 1$$

Where F is the desired tone frequency. (The internal calibration works pretty well for the modulator) Install a jumper at JMP4, and JMP9 pins 1-6 (top). Type CALSET N<cr>. Then go to calibrate mode, hit a K, hit the space bar until the appropriate tone is selected, adjust the appropriate trimpot (R78 for the lower tone). watch the STA and CON LEDs. STA indicates frequency too high. CON indicates frequency too low. Do this adjustment very slowly. Remove the jumper from JMP9.

2. Attach the oscilloscope probe to the data output pin of the XR-2211(PIN 7). Place a jumper on JMP7. Go into CALIBRATE mode, hit K then D, and adjust the demodulator center frequency pot for a data demodulator are properly aligned to each other. Now adjust R212 in the tuning indicator so that the tuning dot is on one of the two center LEDs (I prefer to use the left-center LED). Remove the jumpers from JMP4 & JMP7.

Once this has been done for 300 baud operation, R212 should be left out of the procedure for other baud rates. Also once R212 has been properly set as per above, the oscilloscope is no longer necessary to set the demodulator center frequency. Just get the modulator tones right, do an audio loopback, and set the demodulator for center indication on the tuning indicator when listening to the CAL-D pattern.

I will not describe the internal method for alignment of the demodulator center frequency since it is an unreliable procedure at best. I understand that the next software release will correct this and provide an accurate method of doing the PLL alignment without external test equipment (i could be wrong about this as I haven't heard from Howie lately...).

I hope this procedure is of some help to you. Please let me know how it works out. I get mail at either W1FJI in Phoenix or KC7CG here in Tucson.

73 Eric

I have put the 200K R205 back in the circuit and replaced MFJ's LM-3915 with the LM-3914 as per N7CL's suggestion. At this point, the tuning display works exactly like the book says it will and is very linear in it's reaction to frequency offset. I suggest that anyone purchasing a 1274 TNC from MFJ take the lid off and make a quick check of R205, U204 and U205 and be sure that they are 200K, LM-3914 and LM-3914 respectively. If they are not, change them and be sure to do a

realignment of R212 as per book instructions or the procedure below.

Install a temporary jumper on JMP 4 and JMP 7 and be sure that the HF button is pushed in for HF tone group. Disable the PIT line to the radio and be sure there is no audio going into the TNC from the radio; it could cause some error. At the CMD: prompt, type CAL(ret) followed by a K and a D. This will put out equal pulses of high and low tones, giving something for the tuning display to average. Adjust R212 for one of the center two LED's while in this mode. After centering is complete, type a Q and remove the two temporary jumpers.

While I had the board out earlier, I installed a mini toggle switch just above the DIP switch baud rate selector. It is a pain (and I don't think the switch mounting will take very much of it) to change from HF to VHF baud rates on the radio port. The RS-232 port baud rate is not something that you would likely change very often but the radio port could very well get changed several times a day. By leaving the last three DIP switches in the off position and installing a three position (center off) toggle switch in parallel with the DIP switch, you can rapidly switch from one baud rate to the other. Hook one side of the switch to the 300 baud DIP switch terminal (extra holes on bottom rear of the board) and the other side to the 1200 baud terminal. The center terminal of the toggle will go to the common side of the radio baud rate DIP switch. By leaving the toggle in the off position, you can still use the DIP switches for whatever (like playing with 9600 baud).

This has turned out to be a much better TNC than I had expected it to be and I am very pleased with mine. It works HF with weaker signals than my KPC will and is obviously easier to get on the right frequency with.

One fine unit!

73, Gary - AGØN @ WA7TJU

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MORE HANDY HINTS

The other line always moves faster.

You will always find something in the last place you look.

No matter how long you shop for an item, after you've bought it, it will go on sale cheaper.

In order to get a loan, you must first prove you don't need it.

Anything you try to fix will take longer and cost more than you thought.

If you fool around with a thing for very long, you will screw it up.

You will remember that you forgot to take out the trash when the garbage truck is two doors away.

FREE WANT ADS in BADGER STATE SMOKE SIGNALS

Yes, they are FREE. BSSS will run your WANT AD listing Amateur Radio related equipment you wish to buy, sell, trade, or whatever. Non-commercial listings only.

FOR SALE: 75 assorted stamps. \$1.00 - choose U.S./foreign. Richard R. Regent, K9GDF, 5003 South 26th St., Milwaukee, WI 53221

WANTED: Speaker cabinet for a Hammarlund HQ-129 or HQ-140. Mark Koppp, 5562 Hwy. 113-19, Waunakee, WI 53597. (608) 849-7578

WANTED: FC-102 antenna tuner. Joe Jarecki, KA9VKH. (715) 836-7854

SMUG, Sinclair Milwaukee Users Group. Get full use of your ZX, TS1000 or TS2068. Write to SMUG, P.O. Box 101, Butler WI 53007.

WANTED: Phonograph records from 1950's, 60's & 70's, in good playable condition. AC9J, LaVonne. (608)-273-3217

WANTED: Sheets of the old five-cent Amateur Radio stamps issued in 1964. Gary Heilmann, WA9FRQ, 1171 Mather, Green Bay, WI 54303.

WANTED: YAESEU FT-010, 101E or 101EE with digital frequency readout meter. Rick Plouffe, RTE. 3, Box 33, lot 2. Baraboo, WI 53901.

FOR SALE: Lakeshore Industries P-400-GG linear, 80-10, and 11, 400 Watts out, 4-EL38s, clean. \$250.00. Palomar Engineers all-band pre-amp, 1.8-54 MHz., manual, clean. \$90.00. G. Loudon, N9CCI, 205 E. Main St., Omro, WI 54963. (414) 685-6172

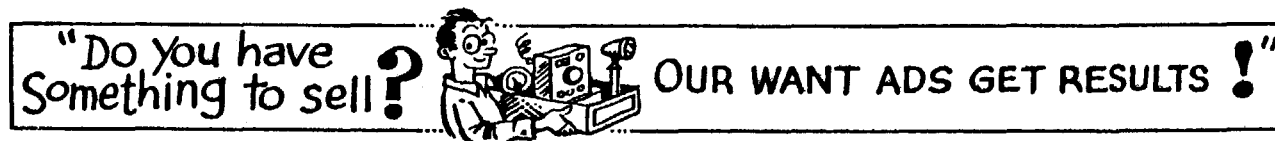
The NUT NET meets on 28.430 MHz at 730 p.m. local time Tuesday evenings. Usually somebody is on other nights. This is an informal net in the Dubuque area. Anybody is welcome regardless of class of license.

--Paul, N9FVN

Yes, they are FREE. BSSS will run your WANT AD listing Amateur Radio related equipment you wish to buy, sell, trade, or whatever. Non-commercial listings only. Length and number of free ads may be subject to space limitations. We reserve the right to refuse any listing that we feel is inappropriate.

Send your copy to Ken Ebnetter, K9EN, 822 Wauona Trail, Portage, WI 53901.

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PROPAGATION PREDICTIONS



BY **Woody Minar K9EF**
13508 Tabscott Drive, Chantilly, Va. 22021

The NOAA Space Environment Services Center (SESC) in Boulder, Colorado has placed a microcomputer public bulletin board system (PBBS) in service.

In operating the bulletin board, SESC is experimenting with a new and popular

technique for delivering SESC text products. Currently, the daily summary and forecast of solar and geophysical activity and a daily HF propagation summary and forecast (with updates every six hours) are being offered on the bulletin board. In the future, information about other NOAA space environment services and samples of a variety of SESC products will be posted on the PBBS.

The PBBS operates 24 hours each day. Individuals equipped to access such systems can reach the SESC bulletin board at: (303) 497-5000, using 300/1200 baud. Protocol is the standard 8-bit data word with 1 stop bit and no parity.

Anyone interested in receiving or look-

ing for other geophysical data, the World Data Center should be contacted at: National Geophysical Data Center, Solar Terrestrial Physics Division (E/GC2), 325 Broadway, Boulder, Colorado 80303.

Better than average propagation should occur on: May 11-12, May 25-26, and June 8-9.

Days when the propagation will be down in the dumps should occur on: May 18-20, June 1-2, and June 15-17.

73, Woody, K9EF

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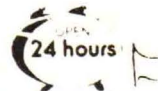
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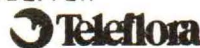
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